TABLE 2 - Beach Nourishment Projects in California (modified from Coyne, 2000)  Site  Cell  City/County  Latitude  Longitude  Database  Date of project  Dredge/Fill Volume (yd³)  Fill Source/Site  Crescent City Harbor (inner Harbor Basin, entrance Tharbor Basin, entranc	Dredge/Fill Characteristics sandy/silty  er expected to be >90% sand	Activity  DR, R B harbor bypassing
Site Cell City/County Latitude Longitude Database Date of project (yd³) Fill Source/Site Dredge/Fill Volume (yd³) Fill Source/Site Dredge/Transport Method  Crescent City Harbor (inner Harbor Basin, entrance Harbor Basin, entrance Nopper dredge, hydraulic pipeline dredge or clamshell/barge.  Crescent City Rlamath River Crescent City, Del Norte Co. TC'89 every few years 3-4,000,000 harbor bypassing  Crescent City Crescent City, Del Norte Co. TC'91 every few years -3,500,000 harbor bypassing  Humboldt Bay South Spit (Nearshore Ocean Disposal Site) FC October, 1988 T45,000 and North Bay Channels dredge maintenance and advance maintenance dredging using hopp dredge maintenance and advance maintenance dredging using hop	sandy/silty	DR, R
Site Cell City/County Latitude Longitude Database Date of project (yd³) Fill Source/Site Dredge/Transport Method  Crescent City Lol Norte Co.  Crescent City, Del Norte Co.  Crescent City Lol Norte Co.  TC'91 every few years  August to October, 1988  T45,000 Annels  Humboldt Bay, Humboldt Bay, Humboldt Co.  Eureka Humboldt Bay, Humboldt Co.  Latitude Longitude Database Date of project  (yd³) Fill Source/Site Dredge/Transport Method  Crescent City Harbor (Inner Harbor Basin, entrance hopper dredge, hydraulic pipeline dredge or clamshell/barge.  TC'91 every few years  -3,500,000  -3,500,000  Humboldt Harbor Bar, Entrance, maintenance and advance maintenance dredging using hopper dredge.  August to October, 1988  T45,000  And North Bay Channels  Aredge	sandy/silty	DR, R
Site Cell City/County Latitude Longitude Database Date of project (yd³) Fill Source/Site Dredge/Transport Method  Crescent City Lol Norte Co.  Crescent City, Del Norte Co.  Crescent City Lol Norte Co.  TC'91 every few years  August to October, 1988  T45,000 Annels  Humboldt Bay, Humboldt Bay, Humboldt Co.  Eureka Humboldt Bay, Humboldt Co.  Latitude Longitude Database Date of project  (yd³) Fill Source/Site Dredge/Transport Method  Crescent City Harbor (Inner Harbor Basin, entrance hopper dredge, hydraulic pipeline dredge or clamshell/barge.  TC'91 every few years  -3,500,000  -3,500,000  Humboldt Harbor Bar, Entrance, maintenance and advance maintenance dredging using hopper dredge.  August to October, 1988  T45,000  And North Bay Channels  Aredge	sandy/silty	DR, R
Whaler Island Smith River Crescent City, Del Norte Co. FC 1998 70,000 channels) hopper dredge, hydraulic pipeline dredge or clamshell/barge. Crescent City Klamath River Crescent City Klamath River Crescent City Klamath River Crescent City, Del Norte Co. TC'89 every few years 3-4,000,000 harbor bypassing  TC'91 every few years -3,500,000 harbor bypassing  Humboldt Bay South Spit (Nearshore Ocean Disposal Site) Eureka Humboldt Bay, Humboldt Co. FC October, 1988 745,000 and North Bay Channels dredge	sandy/silty	DR, R
Whaler Island Smith River Crescent City, Del Norte Co. FC 1998 70,000 channels) hopper dredge, hydraulic pipeline dredge or clamshell/barge. Crescent City Klamath River Crescent City, Del Norte Co. TC'89 every few years 3-4,000,000 harbor bypassing  Crescent City Klamath River Crescent City, Del Norte Co. TC'91 every few years -3,500,000 harbor bypassing  Humboldt Bay South Spit (Nearshore Ocean Disposal Site) Eureka Humboldt Bay, Humboldt Co. FC October, 1988 745,000 and North Bay Channels dredge	er	В
Crescent City Klamath River Crescent City, Del Norte Co. TC'89 every few years 3-4,000,000 harbor bypassing  Crescent City Klamath River Crescent City, Del Norte Co. TC'91 every few years -3,500,000  Humboldt Bay South Spit (Nearshore Ocean Disposal Site)  Eureka Humboldt Bay, Humboldt Co. FC October, 1988 745,000 and North Bay Channels dredge	er	В
Crescent City Klamath River Crescent City, Del Norte Co. TC'91 every few years ~3,500,000  Humboldt Bay South Spit (Nearshore Ocean Disposal Site)  Eureka Humboldt Bay, Humboldt Co. FC October, 1988 745,000 and North Bay Channels  Humboldt Bay Channels  Maintenance and advance maintenance dredging using hopp dredge		B harbor bypassing
Humboldt Bay South Spit (Nearshore Ocean Disposal Site)  Humboldt Bay, Humboldt Co.  FC  October, 1988  August to October, 1988  745,000 and North Bay Channels  dredge  dredge		narbor bypassing
Ocean Disposal Site) Eureka Humboldt Bay, Humboldt Co. FC October, 1988 745,000 and North Bay Channels dredge		
Ocean Disposal Site) Eureka Humboldt Bay, Humboldt Co. FC October, 1988 745,000 and North Bay Channels dredge		
Ocean Disposal Site) Eureka Humboldt Bay, Humboldt Co. FC October, 1988 745,000 and North Bay Channels dredge		
	expected to be >90% sand	N DO DD
		N,DS, DR
Humboldt Bay (Nearshore Ocean August 1 - Humboldt Harbor Bar, Entrance,		
Disposal Site) Eureka Humboldt Bay, Humboldt Co. FC October 15, 1989 585,000 North Bay Channel self-propelled hopper dredge		DS, DR
Doran Beach Bodega Bay, Sonoma County FC 1980 <80,000 Harbor, Bodega Bay placed above MHHW	mostly sand	DS, DR
Dollar Beauti Boulega Bay Boulega Bay Solicina County FC 1900 Solicina Bay Bollinas	mostly sand	beach erosion control
San Francisco sewage disposal		upland excavation
Ocean Beach San Francisco San Francisco San Francisco TC'91 "box"		spoils
500 C C C C C C C C C C C C C C C C C C		h a sala a s
Capitola Santa Cruz Capitola, Santa Cruz Co. TC'91 1970 ~20,000		beach restoration
Capitola Santa Cruz Capitola, Santa Cruz Co. TC'89 1969-70 2000 truckloads liocal quarry sand terminal groin with small beach fill delivered by truck		N
Capitola Santa Cruz Capitola, Santa Cruz Co. SPCA76 1970		groin and fill
Seabright Beach Santa Cruz   Santa Cruz Co.   TC'89   periodically   entrance   harbor dredging and beach placement		DR, N
Seabright Beach         Santa Cruz         Santa Cruz Co.         TC'89         periodically         entrance         harbor dredging and beach placement           Seabright Beach         Santa Cruz         Santa Cruz Co.         TC'91         TC'91         TC'91		harbor bypassing
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1965 70,000 Santa Cruz Harbor		, and a second
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1966 34,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Santa Cruz Co. RW'94 1967 57,000 Santa Cruz Harbor Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1968 60,500 Santa Cruz Harbor		
Twin Lakes State Beach Santa Citiz Santa Citiz Co. RW94 1969 00,300/Santa Citiz Harbor Santa Citiz Santa Citiz Co. RW94 1969 79,000/Santa Citiz Harbor Santa Citiz Santa Citiz Co.		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1970 94,700 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1971 108,300 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1972 90,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Santa Cruz Co. RW'94 1973 109,000 Santa Cruz Harbor Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1974 60,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1975 91,000[Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1976 98,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1977 52,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Santa Cruz Co. RW'94 1977 147,000 Santa Cruz Harbor Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1978 55,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Santa Cruz Co. RW'94 1978 55,000 Santa Cruz Harbor Twin Lakes State Beach Santa Cruz Santa Cruz Santa Cruz Co. RW'94 1979 162,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1980 190,250 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1981 187,687 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1982 138,188 Santa Cruz Harbor Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1983 154,498 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1983 154,498 Santa Cruz Harbor Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1984 79,479 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1985 145,237 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1986 207,315 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1987 212,410 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1988 230,351 Santa Cruz Harbor Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW'94 1989 214,544 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cluz Santa Cluz Co. RW94 1990 214,344 Santa Cluz Harbor Santa Cluz Fallo Cluz Fal		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. RW94 1991 163,250 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz, Santa Cruz Co. RW'94 1992 160,000 Santa Cruz Harbor		
Twin Lakes State Beach Santa Cruz Santa Cruz Co. TC'89 Santa Cruz small craft harbor entrance harbor dredging and beach placement		DR, N
Twin Lakes State Beach Santa Cruz Santa Cruz Co. TC'89 entrance harbor dredging and beach placement		DR, N
Twin Lakes State Beach Santa Cruz Santa Cruz Co. TC'91		harbor bypassing
October 81;		1
October 82;		
October 83; October 84;		
October 85; Santa Cruz Yacht Harbor maintenance dredging; transport by suction dredge and pipel	ne	
Twin Lakes State Beach Santa Cruz Santa Cruz Santa Cruz Co. FC October 86 230,000 channel into surf zone		DR, R
March/April/ May maintenance dredging of Santa <16" diameter dredge pipeline, in water, discharging onto bea	ch,	
Twin Lakes State Beach Santa Cruz Santa Cruz Co. FC 1984 130,000 Cruz Yacht Harbor followed by beach shaping		R, DS, DR
12/15/84- 2/10/85; 2/11/85-		
27 (Job., 27 (Job., 27 (Job.)) 3/28/85, 4/15/85-  < 416" pipeline from E jetty of yacht harbor, then buried in bear	h	
Twin Lakes State Beach Santa Cruz Santa Cruz Santa Cruz Co. FC 5/17/85 176,000 Santa Cruz Yacht Harbor w/ shifting discharge points either on beach or in surf zone		R, DS, DR
11/22/85-		
12/22/85 1/6/86 -   2/6/86; 2/10/86 -		
20/080; 2/10/08 - 3/2/186; 4/7/86 - Santa Cruz Yacht Harbor <16" diameter dredge pipeline, from E jetty, buried, dischargi	la la	
Twin Lakes State Beach Santa Cruz Santa Cruz Co. FC 5/7/86 230,000 maintenance dredging onto beach at multiple points		DS, DR
Twin Lakes State Beach Santa Cruz Santa Cruz, Santa Cruz Co. ACOE'90 1986 197,000 Santa Cruz Harbor beach fill		DR, DS
Twin Lakes State Beach Santa Cruz Santa Cruz, Santa Cruz Co. ACOE'90 1987 212,000 Santa Cruz Harbor beach fill		DR, DS

					T			
	Duration of							
Applicant/Sponsor	FIII/Performance	Funding	Environmental Effects	Monitoring	Notes	Ref. ID	Permit/FC Ref. See Also	
USACOE						CD-80-98		
USACOE					source: Armstrong 1987	CD-00-90		
					sources: Armstrong "disposal of the dredged material directly on the beach was considered			
				COE monitored nearshore site using	impractical due to high costs and unsafe wave conditions in the area."			
			Gray Whale (scheduled outside of migration periods); commercial and	bathymetric surveys (Aug., Oct. '88, March '89) and Seabed Drifter (Nov.	"the designation of a [nearshore site]is viewed as a "test" to discover whether sand will be retained in the littoral system and provide beach			
USACOE			Gray Whale (scheduled outside of migration periods); commercial and recreational crab fishing (scheduled after season ends)	'88)	nourishment."	CD-045-88	CD-21-87	
				planned bathymetric and seabed drifter surveys of site:Aug. 89, post-deposition,	"preliminary data from bathymetric surveys and seabed drifter releases			
				Winter, '90, Spring '90; biological: June,	indicates that the dredge deposited the Nearshore Site (sic) in FY-1988		CD-5-88; CD-45-88; CD-31-86;	
USACOE			turbidity, smothering of benthics	Sept.'89, March '90	have dispersed and has remained in the littoral zone"	CD-026-89	CD-18-85; CD-21-87	
USACOE						CD-006-80		
<u> </u>	washed away in '82-				sources: Armstrong			
	'83 storms				source: Armstrong			
city of Capitola	lost 3x '70-'86; present in '86	\$146,100 (inc. groin)			source: CA Dept of Nav. And Ocean Dev. 1976; Griggs and Savoy '86; Shaw 1980			_
city of Capitola city/CA Parks and	00							
Recreation city/CA Parks and		\$146,000			source: CA-DNOD 1977; Griggs and Savoy 1986	1		
Recreation		\$146,100			source: CA-DNOD 1976			
					source: CA-DNOD 1977; Griggs and Savoy 1986 source: Griggs and Savoy 1986			
-		-						
					source: CA-DNOD 1977; Armstrong 1987			
	feader beach				source: CA Dept of Nav. And Ocean Dev. 1977 (atlas); Armstrong 1987			
	Cader beach				Source: St. Dept. of Hav. Find Occur Dev. 1977 (auds), Amistrony 1907			
1		I						
USACOE						CD-012-81		
USACOE						CD-046-83		
USACOE		I				CD 050 04	CD-12-81, CD-46-83, CDP 3-59- CDP 3-84-13 84	
USACUE						CD-059-84	ODI 0-04-13 04	
		I						
LIEACOE		via povigation Project				CD-031-85	CDP 3-84-13 CD-59-84; CD-46-83	
USACOE USACOE		via navigation Project via navigation Project						

	ı	T					Dredge/Fill Volume				
Site	Cell	City/County	Latitude	Longitude	Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
	Santa Cruz	Santa Cruz, Santa Cruz Co.	Zuntuuo	Longitudo	ACOE'90	1988		Santa Cruz Harbor	beach fill	Drougon in onaractorionoc	DR, DS
Twin Lakes State Beach	Santa Cruz	Santa Cruz, Santa Cruz Co.			FC	1994		San Lorenzo River channels			N, DS, DR
	Southern						·	maintenance dredging of Moss	hydraulic cutterhead dredge with submerged pipeline disposal		
Moss Landing State Beach	Monterey Bay	Monterey Bay, Monterey County			FC	March/April '84	10-20,000	Landing Harbor	intertidally (north of Sandholt Pier)	medium sand	R, DS, DR
	Southern										
Moss Landing State Beach		Monterey Bay, Monterey County			ACOE'90	1987		Moss Landing Harbor	beach fill		DR, DS
Morro Bay beaches	Morro Bay	Morro Bay, San Luis Obispo			TC'89	since 1940s		Morro Bay navigational channel			DR, N
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'91	1949	822,000				
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'91	1964	702,000				
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'91	1968	406,000				
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'91	1971	190,000				4
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'91	1982					4
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'91	1985					4
Marin Barr	M B	Marrie Barre Cara Luda Obliga			T0100	1985	400.000	Manage Barrage design at the count	deadered the entire of New York and the second		DR. N
Morro Bay Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'89	1985	120,000	Morro Bay navigational channel	dredged, then pumped N of harbor entrance		DR, N
	Morro Bay	Morro Bay, San Luis Obispo Morro Bay, San Luis Obispo			TC'91 ACOE'90	1987	400.000	probably Morro Bay	beach fill		DR, DS
Morro Bay	Morro Bay Morro Bay	Morro Bay, San Luis Obispo			TC'91	1941-1943	1,000,000	ргораріу могго вау	0.7 mi long fill		DR, DS
		Morro Bay, San Luis Obispo			TC'91	1942-1946	3,071,000		0.7 Till long till		Harbor construction
Morro Bay Morro Bay	Morro Bay Morro Bay	Morro Bay, San Luis Obispo			TC'91	1974?	3,071,000				marbor construction
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo			TC'89	early 1940's		Morro Bay navigational channel			DR
WOTO Bay	WOTO Bay	MOITO Bay, Sail Luis Obispo			10 69	earry 1940'S		WOTO Bay Havigational Chariner			DR
Morro Boy	Morro Pov	Marra Pay San Luis Obiana			TC'91	voorly	~120,000				harbar hypagoina
Morro Bay	Morro Bay	Morro Bay, San Luis Obispo	-		1091	yearly	~120,000				harbor bypassing
	1					November '84 to		Morro Bay entrance channel,	hydraulic suction dredge, tractor with pipe lift attachment on	fine to medium grained, poorly	
Morro Dunes Natural Preserve	Morro Bay	Morro Bay, San Luis Obispo			FC	February '85	50 000	Navy Channel, Morro Channel	beach	sorted sands, 1-8% fines	R, DS, DR
WIGHTO DUNES INALUIAN FIESEIVE	woro bay	mono bay, oan Luis Obispo	+	1		i coludiy oo	50,000	racky Chairner, World Chairner	DOGOT	sorted sailus, 1-0 % illies	13, 00, 013
						October 1, 1986 -					
	1					February 15,			pipeline along sand spit to beach disposal site 3 miles S of		
Morro Dunes Natural Preserve	Morro Bay	Morro Bay, San Luis Obispo			FC	1987	350,000	Morro Bay Harbor	harbor entrance	predominantly sand	R, DS, DR
World Duries Natural Freserve	WOTO Day	World Bay, Sair Euls Obispo			10	September '90 to	330,000	Morro Bay Entrance, Navy,	maintenance dredging by hopper dredge; deposition in no	predominantly sand	IX, DO, DIX
						10/15/90-		Morro Channels and additional	deeper than 40' MLLW (sand spit 8000' S of harbor) (nearshore		
Morro Dunes Natural Preserve	Morro Bay	Morro Bay, San Luis Obispo			FC	11/30/90	200.000	embayment near entrance	disposal)	>97% sand	DS, DR
World Builes Hattiral Freserve	Mono bay	Wiorro Bay, Garr Edis Obispo			10	11/00/00	200,000	embayment near entrance	иорози)	- 51 70 Sulla	BO, BIX
						August to	all or fraction of		hopper dredge; disposal by hopper dredge to nearshore no		
Morro Dunes Natural Preserve	Morro Bay	Morro Bay, San Luis Obispo			FC	December 1993		Morro Bay Harbor mouth	deeper than -40' MLLW (sand spit; 8000' S of harbor)		N, DS
World Builes Haturari Teserve	Mono bay	Wiorro Bay, Garr Edis Obispo			10	December 1000	040,000	Morro Bay Flarbor filodar	deeper than 40 MEEVV (Sand Spit, 0000 C of harbor)		11, 50
						November '84 to		Morro Bay entrance channel,	hydraulic suction dredge, 12-26" diameter pipeline on surface of	fine to medium grained, poorly	
Morro Strand State Beach (South)	Morro Bay	Morro Bay, San Luis Obispo			FC	February '85	450 000	Navy Channel, Morro Channel	beach (3.6 mi long)	sorted sands, 1-8% fines	R, DS, DR
morro chara clate Beach (ceath)	mone bay	mone bay, can ball oblige				September '90 to	100,000	Morro Bay Entrance, Navy,	bodon (o.e nii long)	Cortos cariac, 1 070 miles	11, 50, 511
						10/15/90-		Morro Channels and additional	maintenance dredging by hopper dredge; deposition in no		
Morro Strand State Beach (South)	Morro Bay	Morro Bay, San Luis Obispo			FC	11/30/90	200 000	embayment near entrance	deeper than 40' MLLW (8000' N of harbor) (nearshore disposal)	>97% sand	DS, DR
(									hopper dredge; disposal by either hopper dredge or pipeline from		
						August to	all or fraction of		hopper dredge to surf zone or nearshore no deeper than -40'		
Morro Strand State Beach (South)	Morro Bay	Morro Bay, San Luis Obispo			FC	December 1993		Morro Bay Harbor mouth	MLLW; (8000' N of harbor)		N, DS
(							,		either cutterhead hydraulic pipeline dredge with surf zone		.,
								Morro Bay Harbor Entrance,	disposal or hopper/clamshell combination dredge with nearshore		
Morro Strand State Beach (South)	Morro Bay	Morro Bay, San Luis Obispo			FC	11/1/93 - 3/31/94	600.000	Navy and Morro Channels	disposal		DS, DR
( )	,	, , , , , , , , , , , , , , , , , , , ,						, , , , , , , , , , , , , , , , , , , ,			
									first sand-bypassing operation; created offshore ridge: 200' wide		
East Beach	Santa Barbara	Santa Barbara, Santa Barbara			TC'89	1935	202,000	Santa Barbara Harbor	2000' long, 18' of water, 1000' offshore (nearshore)		В
		·					•				
East Beach	Santa Barbara	Santa Barbara, Santa Barbara			TC'91	1935	202,000		0.4 mi long; deposited in ~20 ft water depth, ~1000 ft offshore		harbor bypassing
East Beach	Santa Barbara			<u> </u>	TC'91	1938	584,000		0.2 mi long; ~500 ft wide		harbor bypassing
East Beach		Santa Barbara, Santa Barbara			TC'91	1940	697,700		0.5 mi long		harbor bypassing
East Beach		Santa Barbara, Santa Barbara			TC'91	1942	600,110		1.0 mi long		harbor bypassing
East Beach		Santa Barbara, Santa Barbara			TC'91	1945	717,773		1.0 mi long		harbor bypassing
East Beach		Santa Barbara, Santa Barbara			TC'91	1947	642,977		1.0 mi long		harbor bypassing
East Beach		Santa Barbara, Santa Barbara			TC'91	1949	638,152		1.0 mi long		harbor bypassing
East Beach	Santa Barbara	Santa Barbara, Santa Barbara			TC'91	1950-1952	2,476,098				harbor bypassing
	1					1954-1972					<u> </u>
East Beach		Santa Barbara, Santa Barbara			TC'91	(periodically)					harbor bypassing
East Beach		Santa Barbara, Santa Barbara			TC'91	1972	229,333				harbor bypassing
East Beach		Santa Barbara, Santa Barbara			Shaw'80	1972		Santa Barbara Harbor	bypassing to downcoast of harbor		
East Beach		Santa Barbara, Santa Barbara			Shaw'80	1974	380337	Santa Barbara Harbor	bypassing to downcoast of harbor		4
East Beach		Santa Barbara, Santa Barbara			TC'91	1974	388,000				harbor bypassing
East Beach		Santa Barbara, Santa Barbara			TC'91	1975	50,667				harbor bypassing
East Beach		Santa Barbara, Santa Barbara			Shaw'80	1975		Santa Barbara Harbor	bypassing to downcoast of harbor		4
East Beach		Santa Barbara, Santa Barbara			Shaw'80	1976		Santa Barbara Harbor	bypassing to downcoast of harbor		4
		Santa Barbara, Santa Barbara			TC'91	1976	402,667				harbor bypassing
East Beach	Santa Barbara	Santa Barbara, Santa Barbara			Shaw'80	1977	335899	Santa Barbara Harbor	bypassing to downcoast of harbor		
	L	L									A
East Beach	Santa Barbara	Santa Barbara, Santa Barbara			TC'91	1977	342,667				harbor bypassing
						40					
	Santa Barbara	Santa Barbara, Santa Barbara	1		ACOE'90	1986	300,000	Santa Barbara Harbor	beach fill		4
East Beach											4
	Ocata B. :	01-0-1			400F:00	400=		One to Book and I'm	harasta 60		
East Beach East Beach	Santa Barbara	Santa Barbara, Santa Barbara			ACOE'90	1987	225,000	Santa Barbara Harbor	beach fill		
East Beach		Santa Barbara, Santa Barbara Santa Barbara, Santa Barbara			ACOE'90 ACOE'90	1987 1988		Santa Barbara Harbor Santa Barbara Harbor	beach fill beach fill		

	Duration of							
Applicant/Sponsor		Funding	Environmental Effects	Monitoring	Notes	Ref. ID	Permit/FC Ref. See Also	
USACOE	i iii/i cirorinance	via navigation Project	Elitai Olinicittai Elicota	Monitoring	notes	IXCI. ID	Termina o itel. Oce Also	
USACOE		via navigation i rojoot				CD-020-94		
					80,000 - 90,000 yd3 disposed of at end of pier in disposal site SF-12 in 20			
USACOE			loss of benthic communities; loss of beach communities		ft below MLLW	CD-038-83	CD-11-81	
USACOE		lowest cost disp.alt.						
					source: Converse 1982			
					source: Hall 1952; USACOE-LA 1974(Morro Bay) source: Hall 1952; USACOE-LA 1974(Morro Bay)		+	
					source: Hall 1952; USACOE-LA 1974(Morro Bay)			
					source: Hall 1952; USACOE-LA 1974(Morro Bay)			
					source: Hall 1952; USACOE-LA 1974(Morro Bay)			
	lost w/in 2 years				source: Sears 1987			
	2 years				source: David Sears, Morro Beach State Park, CA dept of P & R, 1987			
USACOE		lowest cost disp.alt. \$155,000			Delivery Hell 4050; HCACOE LA 4074/Marra Devi			
		\$100,000			source: Hall 1952; USACOE-LA 1974(Morro Bay) source: Hall 1952; USACOE-LA 1974(Morro Bay)			
					source: Hall 1952; USACOE-LA 1974(Morro Bay)			
					source: Hall 1952; USACOE-LA 1974(William Bay)			
	sand lost to offshore							
	off "reef"		little storm recovery observed		source: Converse 1982; Armstrong 1987; Sears 1987			
					-			
					location is site of dune blowouts; replenishment is paired with			
USACOE					revegetation effort	CD-058-84	CDP 4-84-380 CD-39-86, CDP 4-86-218	
			potential impacts on: eelgrass beds, grunion, peregrine falcon, CA brown					
			pelican, southern sea otter, Morro Bay kangaroo rat; project timed to	0			000 4 04 000	
USACOE			avoid impacts, but dredging will impact clam feeding ground of otters in channel	Corps will monitor to define impacts to endangered sea otters		CD 030 86	CDP 4-84-380; CDP 4-86-218	
USACOL			Citatile	COE will monitor material using pre-		CD-039-00	CD1 4-00-216 CD-30-04, CD-11-07	
			impacts to: eel grass beds in bay, grunions, peregrine falcons, brown	and post- bathymetric surveys to	previous monitoring of effects of dredging on clams (otter food supply)			
USACOE			pelicans, southern sea otters	determine fate of material	revealed no detrimental effect.	CD-029-90	CD-39-86; CD-58-84; CD-11-87	
		\$2,192,000 start-up;			more likely disposal choice; "Final disposal site will be selected prior to			
		80% Corps/20% City			construction and based upon specific need for beach nourishment		CD-9-90; CD-9-86; CD-8-84: ND-	
USACOE		of Morro Bay	reefs in disposal area		material, weather conditions, and other temporally variable factors."	CD-081-91	1-87	
					site is from 400' N of rock to 400' N of Morro Creek, from 5-20' below			
			adverse impacts to Southern Sea Otter (dredging); area around Morro		MLLW to 12' above MLLW; lead to rapid shoaling of harbor to S (CD-39-			
USACOE			Creek left clear for steelhead; no dune disturbance	005 111 11 11 11 11	84)	CD-058-84	CDP 4-84-380 CD-39-86, CDP 4-86-218	
			impacts to: cal gross hade in how grupions, percepting follows, brown	COE will monitor material using pre-	provious manitoring of offsets of dradging on clams (atter food supply)			
USACOE			impacts to: eel grass beds in bay, grunions, peregrine falcons, brown pelicans, southern sea otters	and post- bathymetric surveys to determine fate of material	previous monitoring of effects of dredging on clams (otter food supply) revealed no detrimental effect.	CD-029-90	CD-39-86; CD-58-84; CD-11-87	
USACOL		\$2,192,000 start-up;	pelicans, southern sea otters	determine rate of material	less likely disposal choice; "Final disposal site will be selected prior to	CD-023-30	CD-39-00, CD-30-04, CD-11-07	
		80% Corps/20% City			construction and based upon specific need for beach nourishment		CD-9-90; CD-9-86; CD-8-84: ND-	
USACOE		of Morro Bay	reefs in disposal area		material, weather conditions, and other temporally variable factors."	CD-081-91	1-87	
		,						
USACOE			effects on clams -> otters			CD-044-93		
			"The expectation was that this sand would be carried shoreward and					
			downcoast by natural wave activity. Unfortunately, however, the ridge					
	still there		remained in place, slightly reduced in height, but essentially unaltered (USACOE 1986)."		source: Hall 1952; USACOE-LA 1986; Griggs and Savoy 1986			
	bar still visible in '86		(USACOL 1900).		Source. Hall 1932, OSACOL-LA 1900, Gliggs and Savoy 1900			
	offshore; no migration							
	onshore	\$26,260			source: Griggs and Savoy 1986; Hall 1952			
	sand out of disposal				source: O'Brien 1938; USACOE-CERC 1984; O'Brien 1940; USCOE-LA			
	area by 1940	\$122,787			1986 (oral history)			,
					source: USACOE-LA 1986 (oral)			
		\$131,424			source: Hall 1952		+	
		\$170,112 \$100,306			source: Hall 1953 source: Hall 1954		+	
		\$109,306 \$122,525			source: Hall 1954 source: Hall 1955		+	
		⊅1∠∠,5∠5			source: Shaw 1980; USACOE-CERC 1984		+	
					22222 223 1000, 001002 0210 1004		+	
					source: Shaw 1980			
					source: Shaw 1980			
					source: Shaw 1980			
					source: Shaw 1980			
					pouroe: Show 1090		+	
					source: Shaw 1980			
	erosion checked but						+	
	beach not recovered				source: Shaw 1980; USACOE-LA 1986 (oral)			
	22	Section 111, RHA						
		1968						
		Section 111, RHA						
		1968						
		Section 111, RHA						
		1968						

		1			Dredge/Fill Volume				
Site	Cell City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
East Beach	Santa Barbara Santa Barbara, Santa Barbara		FC	2/24/86 - 5/15/86	250 000	Santa Barbara Harbor	discharge point = 2300' E of Stearn's Wharf within surf zone		DS, DR
East Beach	Santa Barbara Santa Barbara, Santa Barbara		FC	9/15/86 - 3/1/88		Santa Barbara Harbor	placement b/w sand dikes to enhance settling of sand		DS, DR
				Fall '89 to Spring	•		·		
East Beach	Santa Barbara Santa Barbara, Santa Barbara		FC	'92	600,000	Santa Barbara Harbor mouth	(2300' S of Stearn's Wharf)		DS, DR
				Oct '92 - Feb '93					
Fast Daneh	Canta Barbara   Canta Barbara   Canta Barbara		FC	or March 1 - April	600,000			dredge spoils compatible w/ local sediment on East Beach	DC DD
East Beach	Santa Barbara Santa Barbara, Santa Barbara		FC	30 '93	600,000	West Beach	either on beach or single-point discharge in surf zone	local sediment on East Beach	DS, DR
				10/1/94 - 4/30/95;					
				10/1/95 - 4/30/96;		Santa Barbara Harbor and sand	maintenance dredging; disposal either on beach or in surf zone		
East Beach	Santa Barbara Santa Barbara, Santa Barbara		FC	10/1/96 - 4/20/97	600,000		via pipeline oriented perpendicular to shore below MHW		DS, DR
E . B . I				Fall '99 to Spring					
East Beach	Santa Barbara Santa Barbara, Santa Barbara		FC	'05	600,000	Santa Barbara Harbor mouth	beach and surfzone disposal		DS, DR
East Beach	Santa Barbara Santa Barbara, Santa Barbara		TC'89	every 1-2 years since 1935		Santa Barbara Harbor	bypassing directly onto beaches		B, N
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		TC'89	1962	200,000	Santa Barbara Harbor	placed as part of groin project		R
			1000						beach erosion control
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		TC'91	1962	197,500		~1.4 mi long, 139-261 ft wide		(groin)
							initially formed beach area 42-79 m. by 1121 m long; deposited		
San Buenaventura Beach	Santa Barbara Ventura, Ventura County		Shaw'80	1962		Ventura Harbor	South of groins 5,4,and 2	migrated south	
San Buenaventura Beach San Buenaventura State Beach	Santa Barbara Ventura, Ventura County Santa Barbara Ventura, Ventura County	1	Shaw'80	1963 1963	522800 533,333	Ventura Harbor	deposited north of groins 4 and 7		
oan buenaventura State Beach	Ganta Dalibara Ventura, Ventura County		TC'91	1903	533,333				beach erosion control
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		TC'91	1965	235,000		0.5 mi long; 150-170 ft wide		(groin)
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		RW'94	1966		Ventura Marina			R (groin)
									beach erosion control
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		TC'91	1967	449, 800		1.0 mi long; 130-200 ft wide		(groin)
San Buenaventura Beach	Santa Barbara Ventura, Ventura County		Shaw'80	1967		Ventura Harbor	deposited north of groins 7 and 9		
San Buenaventura Beach	Santa Barbara Ventura, Ventura County		Shaw'80	1973	5228	Ventura Harbor	emergency fill		
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		TC'91	1976					harbor bypassing
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		1031	January - March					narbor bypassing
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		FC	'90	100,000 - 150,000	Ventura Harbor	maintenance dredging (Ventura-Pierpont Groin Field)		N, R, DS, DR
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		SPCA'76	1967			,		7 groins & fill
San Buenaventura State Beach	Santa Barbara Ventura, Ventura County		SPCA'76	1973					groin and fill
							hydraulically dredge Harbor mouth; transport through pipe,		
O th. Do h	Santa Barbara Ventura, Ventura Co.			March - July,	450.000	des dels se of Montes et Heaten	deposit on dry beach until winter, then bulldoze onto active		DO DD
South Beach	Santa Barbara Ventura, Ventura Co.		FC	1983	150,000	dredging of Ventura Harbor	beach face (b/w Harbor and Santa Clara River mouth)		DS, DR
Ventura	Santa Barbara Ventura, Ventura Co.		FC	June/July '84	200 000	Ventura Harbor	disposal area: 1000 ft long, high on beach, 2 discharge points	clean sand	
Vontara	Carta Barbara Voltara, Voltara Co.			cancroary or	200,000	Ventura Harber	diopodal diod. 1000 it long, high on bodon, 2 dioonal go pointe	ologii ogiid	
Ventura	Santa Barbara Ventura, Ventura Co.		ACOE'90	1986	1,000,000	Ventura Harbor	beach fill		DR, DS
Ventura	Santa Barbara Ventura, Ventura Co.		ACOE'90	1987	550,000	Ventura Harbor	beach fill		DR, DS
Vontura	Santa Barbara Ventura, Ventura Co.		ACOF100	1988	900 000	Venture Herber	booch fill		DR, DS
Ventura	Santa Barbara Ventura, Ventura Co.		ACOE'90	1900	800,000	Ventura Harbor	beach fill		DR, DS
						Ventura Harbor south jetty repair			
Ventura	Santa Barbara Ventura, Ventura Co.		FC	1997	19,500	and modification	either cutter head pipeline dredge or hopper dredge (nearshore)	clean sandy sediments	DS, DR
				12/23/84 -		Ventura Harbor sand traps and	,, , , , , , , , , , , , , , , , , , , ,		
Marina Park Beach	Santa Barbara Ventura, Ventura County		FC	3/15/85		entrance channel	hydraulic dredge	fine sand (>91% on 200 sieve)	
McGrath State Beach	Santa Barbara Ventura, Ventura County		TC'91	1970	249,333				harbor bypassing
McGrath State Beach Park	Santa Barbara Ventura, Ventura County		Shaw'80	1970		Ventura Harbor			
McGrath State Beach Park McGrath State Beach	Santa Barbara Ventura, Ventura County Santa Barbara Ventura, Ventura County		Shaw'80 TC'91	1971 1971	924049 942,667	Ventura Harbor			harbor bypassing
McGrath State Beach	Santa Barbara Ventura, Ventura County  Santa Barbara Ventura, Ventura County		TC'91	1971	764.000				harbor bypassing
McGrath State Beach Park	Santa Barbara Ventura, Ventura County		Shaw'80	1973		Ventura Harbor			
McGrath State Beach Park	Santa Barbara Ventura, Ventura County		Shaw'80	1974		Ventura Harbor			
McGrath State Beach	Santa Barbara Ventura, Ventura County		TC'91	1974	326,667				harbor bypassing
McGrath State Beach	Santa Barbara Ventura, Ventura County		TC'91	1975	154,667				harbor bypassing
McGrath State Beach Park	Santa Barbara Ventura, Ventura County		Shaw'80	1975 1977		Ventura Harbor			
McGrath State Beach Park McGrath State Beach	Santa Barbara Ventura, Ventura County Santa Barbara Ventura, Ventura County		Shaw'80 TC'91	1977	748911 764,000	Ventura Harbor			harbor bypassing
WIGGIALLI GIALE DEAGLI	Journa Darbara Ventura, Ventura County		1091	1311	704,000				narbor bypassing
McGrath State Beach	Santa Barbara Ventura, Ventura County			1981		dredging of Ballona Creek		black, odoriferous, trashy	DS, DR
							hydraulically dredge Harbor mouth; transport through pipe,		
				March - July,			deposit on dry beach until winter, then bulldoze onto active		
McGrath State Beach	Santa Barbara Ventura, Ventura County		FC	1983	750,000	dredging of Ventura Harbor	beach face		DS, DR
Magazilla Otata Bara i	Ocata Barbara Marbara M. C. C.		7000						la colo con la constanti di
McGrath State Beach McGrath State Beach	Santa Barbara Ventura, Ventura County Santa Barbara Ventura, Ventura County		TC'91	periodically since 1970		Ventura Marina	maintanance dradging and hough saulasishment		harbor bypassing
INICOLATE DESCE	Santa parpara Ventura, Ventura County		TC'89	12/23/84 -		Ventura Marina Ventura Harbor sand traps and	maintenance dredging and beach replenishment		DR, N
McGrath State Beach	Santa Barbara Ventura, Ventura County		FC	3/15/85	800 000	entrance channel	hydraulic dredge; placed ~6100' S of entrance channel	fine sand (>91% on 200 sieve)	R. DS. DR
	Cana Salbara Ventura, Ventura County		10	3/13/03	500,000	on a arioc channel	my areas areage, placed 100 0 or entrance channel	Sana (* 5 1 /0 011 200 Sieve)	, 50, 51
McGrath State Beach (nearshore)	Santa Barbara Ventura, Ventura County		FC	9/15 - 3/15	600,000	Ventura Harbor	clamshell and hopper dredge alternatives proposed		DS, DR
Wicorath State Deach (Hearshole)									
McGrath State Beach (surf and/or nearshore)	Santa Barbara Ventura, Ventura County		FC	9/15/94 - 3/15/95		Ventura Harbor sand traps and entrance channel	hydraulic, hopper and/or clamshell dredges; beach, surf zone, and/or nearshore disposal (<30'MLLW)	predominantly sandy	R, DS, DR

	Duration of						
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring beach profile monitoring to document	Notes	Ref. ID Permit/FC Ref.	See Also
ļ			scheduled during grunion spawning, but deposition in surf zone;	impacts of single-pt surf zone disposal			
USACOE			monitoring planned to determine impacts	on grunion		CD-009-86	
USACOE			grunion			CD-025-86	CD-2-83; CD-12-84; CD-25-84
USACOE						CD-046-89	
ļ			impacts to grunion spawning if contingency dredging necessary; creation	effects of March disposal on grunion			
USACOE			of sand traps in harbor intended to mitigate need for this dredging	spawning		CD-040-92	CD-25-86; CD-46-89
ŀ				April extension to monitor impacts of			CD-21-83; CD-25-86; CD-46-89; CD-58-90; CD-79-91; ND-4-92;
USACOE				surf zone disposal on grunion		CD-032-93	CD-40-92
							CD-21-83; CD-25-86; CD-46-89;
USACOE				nightly surveys of grunion to detect onset of spawning		CD-048-98	CD-58-90; CD-79-91; ND-4-92; CD-40-92; CD-32-93
00/1002				onest or spawning		05 040 00	05 10 02, 05 02 00
LIDAGOE							
USACOE							
	"migrated south"		"impounded on N side of groins"		source: USACOE-LA 1976; Shaw 1980		
ļ							
			"accretion on N side of groins"		source: Shaw 1980		
					source: USACOE-LA 1976		
					30010C. 00A00L-LA 1870		
		\$2,157,000 (7 groins					
		plus fill)	"accretion on N side of groins"		source: USACOE-LA 1976; CA Dept of Nav and Ocean Dev 1976;		
	current bypassing has						
	problems			beach profiles by Ventura Port District,	source: Herron 1987		
USACOE				annually in September		CD-036-89	
		\$2,157,000 \$370,000			source: CA-DNOD 1976 source: CA-DNOD 1976		
		\$370,000			Source: CA-DNOD 1976	CDP 4-83-257A	
ļ						(in lieu of CD-43-	CD-25-84; CD-30-85; CD-42-
USACOE			to mitigate impacts to access, Corps will fill beach in stages; will operate			CD-002-83 84)	88;CD-17-89
USACOE			single discharge points to mitigate tern and grunion impacts		2600 ft beach frontage	CD-025-84 CP 4-83-257	
		Section 111, RHA					
USACOE		1968 Section 111, RHA					
USACOE		1968					
USACOE		Section 111, RHA 1968					
USACUE		1900			sand dredged from around pier; will be placed either in sand trap to be		
ļ					dredged with next maintenance dredging or directly into nearshore		
USACOE				Corps will monitor to define erosion	somewhere downdrift.	CD-168-97	
USACOE			least turn nesting, brown pelican (dredging)	issues	disposal site ~1400 ft long, from first groin in Pierpont groin field	CD-030-85	CD-25-84; CD-42-88; CD-17-89
					source: Shaw 1980		
					source: Shaw 1980		
		_			source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		
		-			source: Shaw 1980		
LA Co/ USACOE			storing sand in backshore until winter to avoid grunion and least turn spawning season		noted in CD-02-83		
USACOE			storing sand in backshore until Sept. 1 to avoid grunion and least turn spawning season		dredging-induced opportunistic surf zone nourishment was conducted prior to this project	CD-002-83	
USACUE			"1977: Effect of bypassing overshadowed by extremely high sediment			CD-002-03	
			flows in Santa Clara River."		source: Shaw 1980 source: Shaw 1980		
			grunion spawning, salt marsh bird's beak, The Belding's Savannah		source: Shaw 1980		
USACOE			Sparrow (nourishment); least turn nesting (dredging) increased turbidity, loss of O2, loss of benthics, impacts to least tern,		disposal site ~4400 ft long	CD-030-85	CD-25-84; CD-42-88; CD-17-89
USACOE/Ventura				hand a second a secon	nearshore disposal -> berm: -15' MLLW, 4300' long, 900' footprint, b/w -		ND-42-88; CD-17-89
Deat Division			grunion	beach profiles by Ventura Port District	15' and -10' contours	IC D-053-91 IC:DP 4-83-257	NI 1-4 2-88: CT1-17-89
Port District			granion	beach promes by ventural of bistnet	10 dild 10 combars	OB 000 31 OB1 4 00 201	145-42-00, 05-17-03

0.4	0.11	1 - 64 - 4 -	Lander de Batalana	B. 4 6	Dredge/Fill Volume	F:11 0 10't-	Part of Tarana Mathed	Decided (E1) Observation (e1)	A . 45 . 56
Site	Cell City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
				9/15/98 - 3/15/99;					
				9/15/99 - 3/15/00;					
				9/15/00 - 3/15/01; 9/15/01 - 3/15/02;		Ventura Harbor entrance,			
McGrath State Beach (surf and/or				9/15/02 - 3/15/03;		navigation channels and sand	hydraulic cutterhead pipeline dredge (maybe hopper or		
nearshore)	Santa Barbara Ventura, Ventura County		FC	9/15/03 - 3/15/04;	500,000		clamshell)	>80% sand	DR, R
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		RW'94	1973	75000	Channel Islands Harbor maintenance dredging			R
Silver Grand Beach	ounta barbara i ott riacrichie, ventara oo.		1000	1070	7 5000	Channel Islands Harbor			
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		RW'94	1975	100000	maintenance dredging			R
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		RW'94	1977	100000	Channel Islands Harbor maintenance dredging			R
						Channel Islands Harbor			
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		RW'94	1981	100000	maintenance dredging			R
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		RW'94	1983	150000	Channel Islands Harbor maintenance dredging			R
						Channel Islands Harbor			
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		RW'94	1987	378000	maintenance dredging			R
				9/1/88 - 3/15/89; 9/1/90 - 3/15/91;		maintenance dredging of Channel Islands Harbor sand	diesel or electric cutterhead hydraulic dredge; buried hydraulic		
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		FC	9/1/92 - 3/15/93		trap, entrance basin, channel	pipeline ( placed 800' downcoast of harbor S jetty)	initially black and smelly	DS, DR
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'89	occassionally		nearby maintenance dredging			N
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	occassionally Sept. '83 to	200,000 cu/yr				harbor bypassing
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		FC	March '84	150,000	Channel Islands Harbor	dredged from harbor, transported via buried discharge pipeline	?	DS, DR
				10/94 - 3/95;					
Silver Strand Beach	Santa Barbara Port Hueneme, Ventura Co.		FC	10/96 - 3/97; 10/98 - 3/99		Channel Islands Harbor and Por Hueneme	t maintenance dredging	predominantly sandy	DR, R
Cirro. Ottalia Dodoll				10/00 - 0/00	years,	excavation of Port Hueneme	mamorane drouging	p.odominanty Santy	D. 1, 11
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura Co.		TC'89	1935-1940	1,500,000				R
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1939	2,614,000	Port Hueneme Port Hueneme harbor			
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1940	1,360,000	excavation			Harbor construction
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1941					
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1953-1954	1,986,640	Port Hueneme	bypassed		
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1954	2,033,000	Channel Islands Harbor			harbor bypassing
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		RW'94	1960	3,700,000	excavation			harbor construction
						Channel islands harbor			
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'89	1960		excavation and bypassing Channel Islands Harbor sand			B, N
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1960-1961	6,234,390				
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1961	6,000,000	Channel Islands harbor			Harbor construction
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1963	1,986,000	Channel Islands Harbor sand			harbor bypassing
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1963	1984026				
						Channel Islands Harbor sand			
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1965	3524979	trap			
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1965	3,527,000				harbor bypassing
Hueneme Beach	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1968	1,704,000				harbor bypassing
University December December 1	Canta Barbara   Bart Huarrana Martina Ca		01102	1000	4070010	Channel Islands Harbor sand			
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1968	1670346	trap Channel Islands Harbor sand			
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County	1	Shaw'80	1969-1970	2722481		initially widened beach 30 m		
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1970	2,777,333		widened beach 99 ft		harbor bypassing
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1971	2,533,333	Channel Islands Harbor sand	widened beach 99 ft		harbor bypassing
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County	1	Shaw'80	1971	2483300	trap and entrance channel			
Described in the second	Conta Barbara Barbilla and Market Conta		01	4070	040000	Channel Islands Harbor sand			
Hueneme Beach Park Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County Santa Barbara Port Hueneme, Ventura Co.		Shaw'80 TC'91	1973 1973	2483300 2,533,333	trap and entrance channel			harbor bypassing
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1975		Port Hueneme			, , , , , , , , , , , , , , , , , , ,
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1975	1,768,000				harbor bypassing
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1975	1623204	Channel Islands Harbor sand trap and entrance channel			
						Channel Islands Harbor sand			
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		Shaw'80	1977	2483300	trap and entrance channel			
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura Co.		TC'91	1977	2,533,333				harbor bypassing
denomo Dedon i din	Cana Sarsara i ott riderierie, ventara ou.		1031	1941, 1943,	2,000,000				na.sor bypassing
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura Co.		TC'89	1954,					R
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		FC	1985? In the future	64.000	Channel A, Port Hueneme, below +1' MLLW	hydraulic dredge from MLLW down to -20'; placed in surf zone unless grunion season; then placed above H20 line	compatible w/ local sediment	N, R, DS, DR
nueneme beaun r'alk	Ganta Darbara   Fort Fluerierile, Ventura County		FC	every two years	01,000	Channel Island Harbor and Port	unicoo grunion season, then piaced above FIZO line	companible w/ local sediment	IN, R, DO, DR
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura Co.		TC'89	since 1960		Hueneme Harbor bypassing			B, N
				October '84 to		Channel Islands Harbor (sand	hydraulic cutterhead dredge; deposited hydraulically via buried pipeline (+10 ft MLLW, 50 ft. from HWL); (downcoast of E Jetty		

plicant/Sponso	Duration of Fill/Performance	Funding	Environmental Effects	Monitoring	Notes	Ref. ID Permit/FC Ref.	See Also
			grunion, least terns, snowy plovers; single point diked discharge to minimize turbidity; discharge further than 200' from mouth of Santa Clara				CD-54-94; CD-53-91; CD-42-88;
USACOE			River to minimize impacts to steelhead trout in estuary			CD-64-98	CD-51-86; CD-30-85; CD-2-83
					source: USA/CESPL as given in Noble 89 as given in Wiegel '94		
					source: USA/CESPL as given in Noble 89 as given in Wiegel '94		
					source: USA/CESPL as given in Noble 89 as given in Wiegel '94		
					source: USA/CESPL as given in Noble 89 as given in Wiegel '94		
					source: USA/CESPL as given in Noble 89 as given in Wiegel '94		
					source: USA/CESPL as given in Noble 89 as given in Wiegel '94		
					Source. USA/CESFL as given in Nobie os as given in Wieger 94		05 05 05 05 05 05 05
USACOE					3000' along beach	CD-004-89	CD-25-83; CD-53-84; CD-43- 86/CD-60-86
					source: CA-DNOD 1977; Armstrong 1987 source: Herron and Harris 1966; Armstrong 1987		
USACOE						CD-025-83 CDP 4-83-257	
JUNCUE			need to protect least terns, grunions, snowy plover; limit post-March 31				CD-4-89; CD-7-89; CD-80-86; CD-
USACOE			disposal to diked or single-point disposal; map for plovers pre-disposal; mitigate impacts to pismo clams			CD-052-94	43-86; CD-53-84; CD-25-83; CD- 15-90; CD-12-85
	3 years						
	total loss and beyond						
	w/in 3 years	\$295,800			source: USACOE-LA 1954 source: USACOE-LA 1954		
					"Plan only partially successful. Bypassed only half the planned volume, b/c of difficulty of dredging in surf zone. Gave temporary respite, but by		
					1958, city of Port Hueneme again building emergency seawall." source: USACOE-CERC 1984		
-							
		\$1,250,000			source: Herron 1987; Herron and Harris 1966		
		\$951,000			source: Herron and Harris 1966		
			"Of 14M cy pumped to feeder beach b/w 1960 and 1966, some 9M cy have moved on downcoast."		source: Herron and Harris 1966		
		\$852,000			source: Shaw 1980, Herron and Harris 1968		
					source: Shaw 1980 source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		
	bypassing has overcome problem				source: Shaw 1980; Armstrong 1987; Herron 1987; USACOE-CERC 1984		
	problem				source: Hall 1952; Herron and Harris 1962)		
USACOE					additional 163,000 yd <sup>3</sup> needed to be dredged/disposed in 1986	CD-012-85 CDP 4-86-204	
					source: Shaw 1980	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
					554.55. Gidw 1000		
USACOE			coverage/disturbance/elimination of benthic communities; turbidity; fish displacement			CD-053-84	CD-25-83; CD-12-85; CD-62-87

					Dredge/Fill Volume				
Site	Cell City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		FC	Sept. '83 to March '84	1,350,000	Channel Islands Harbor	dredged from harbor, transported via buried discharge pipeline	?	DS, DR
Hueneme Beach Park	Conta Barbara Bart Huanama Ventura County		FC	Sept. '83 to March '84	200,000	Hueneme Harbor	deadead from basker transported tie busind discharge air alian	clean sand	DS, DR
	Santa Barbara Port Hueneme, Ventura County		FC	IVIAICII 64			dredged from harbor, transported via buried discharge pipeline	cledii Saliu	D3, DK
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		ACOE'90	1987	2,000,000	Channel Islands Harbor	beach disposal		DR, DS
						Channel Islands harbor	routine dredging; diesel dredge; bermed disposal site >25' from highest contour of wave runup, 1700' long, 7' above MLLW;		
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		FC	3/15/87 - 5/30/87	500,000	entrance, basin, sand trap maintenance dredging of	single return water discharge point	littoral drift material	DS, DR
						Channel Islands Harbor sand	diesel or electric cutterhead hydraulic dredge; hydraulic pipeline		
Hueneme Beach Park	Santa Barbara Port Hueneme, Ventura County		FC	1989 10/94 - 3/95;	2,200,000	trap, entrance basin, channel	on beach surface	initially black and smelly	DS, DR
				10/96 - 3/97;	6,900,000 (over 6	Channel Islands Harbor and Port			
Hueneme Beach Park Hueneme Beach	Santa Barbara Port Hueneme, Ventura County Santa Barbara Port Hueneme, Ventura County		FC FC	10/98 - 3/99 1999-2000		Hueneme Port Hueneme	maintenance dredging maintenance dredging; on or nearshore disposal	predominantly sandy	DR, R clean sediment
Pacific Missile Range	Santa Barbara Point Mugu, Ventura County		TC'89	1947		Mugu lagoon	inamenance dreaging, on or nearshore disposal		DR, N
Pacific Missile Range	Santa Barbara Point Mugu, Ventura County		TC'91	1947	709,333				
Pacific Missile Range	Santa Barbara Point Mugu, Ventura County		Shaw'80	1947		Mugu Lagoon		fill degraded rapidly	
Pacific Missile Range Las Tunas Beach	Santa Barbara Point Mugu, Ventura County Santa Monica Malibu, Los Angeles Co.		RW'94 TC'89	1961 1960-1974	50,000		3 groins constructed with fill	sand	groins and fill
Las Tunas Beach	Santa Monica Malibu, Los Angeles Co.  Santa Monica Malibu, Los Angeles Co.		TC'91	1960-1974	~50,000				beach erosion control
Will Rogers State Beach	Santa Monica Pacific Palisades, Los Angeles Co		TC'91	1020					
Santa Monica State Beach	Santa Monica Santa Monica, Los Angeles Co.		TC'91	1939					
Santa Monica Beach	Santa Monica Venice Beach, Los Angeles County		Shaw'80 TC'91	1939 1943	60,122 150,000	Santa Monica Breakwater	Ocean Park to Santa Monica Pier		hand and a sector
Santa Monica State Beach	Santa Monica Santa Monica, Los Angeles Co.		1091	1943	150,000				beach erosion control
Santa Monica Beach	Santa Monica Venice Beach, Los Angeles County		Shaw'80	1949	396,021	Santa Monica Breakwater	deposited from Ocean Park Pier to Santa Monica Pier		
Santa Monica State Beach	Santa Monica Santa Monica, Los Angeles Co.		TC'91	1950	1,000,000				
Santa Monica State Beach	Santa Monica Santa Monica, Los Angeles Co.		TC'89	1939, 1949, 1950					R
Santa Monica State Beach	Santa Monica Santa Monica, Los Angeles Co.		RW'94	1945	150,000				R
Santa Monica State Beach	Santa Monica Santa Monica, Los Angeles Co.		LHW'94	1939	60.000	Santa Monica Breakwater bypassing	bypassed		
						Santa Monica Breakwater			
Santa Monica State Beach	Santa Monica, Los Angeles Co.		LHW'94	1949-50	960,000	bypassing Santa Monica Breakwater	bypassed		
Santa Monica State Beach	Santa Monica Santa Monica, Los Angeles Co.		LHW'94	1957-58		bypassing	bypassed		
Venice City Beach	Santa Monica Venice, Los Angeles County		LHW'94	1945	150,000	Hyperion excavation			DS
Venice City Beach	Santa Monica Venice, Los Angeles County		RW'94	1945	150,000	Hyperion sewage disposal plant			erosion control
Venice City Beach	Santa Monica Venice, Los Angeles County		TC'89	1945	140,000	nearby dunes	trucked from dunes to beach		R
			T0:04	1015			0.0 million in 75.0 Structule		h h t t
Venice City Beach	Santa Monica Venice, Los Angeles County		TC'91	1945	140,000		0.6 mi long; 75 ft fill width		beach restoration
Venice Beach	Santa Monica Venice Beach, Los Angeles County		Shaw'80	1945	148,998	Santa Monica Breakwater	Venice Pier to Washington St.		
Venice City Beach	Santa Monica Venice, Los Angeles County		RW'94	1947		Hyperion sewage disposal plant			R
	Conta Manica Manica Danah Las Angeles County		01100	1010	4 000 040	Conto Manico Descluyator	El Carrindo to Oassa Badu uidasad basab 100 m (v. ft)		
Venice Beach Venice City Beach	Santa Monica Venice Beach, Los Angeles County Santa Monica Venice, Los Angeles County		Shaw'80 RW'94	1948 1973		Santa Monica Breakwater entrance of Marina Del Rey	El Segundo to Ocean Park; widened beach ~180 m (x ft)		maintenance dredging
Venice City Beach	Santa Monica Venice, Los Angeles County		TC'89	1975	11,000	•			R
Venice City Beach	Santa Monica Venice, Los Angeles County		TC'91	1975	11,000				
Venice Beach	Santa Monica Venice Beach, Los Angeles County		Shaw'80	1975	10,456	Marina Del Rey	bypassing		
				March - May		Marina Del Rey Harbor (sand	either hopper dredge, clamshell dredge with disposal barge or hydraulic cuttterhead with pipeline; pipeline w/ single-pt.		
Venice City Beach	Santa Monica Venice, Los Angeles County		FC LHW/04	1998	<123,00	trap)	discharge in intertidal zone	99% sand	DS, DR
Venice City Beach/Dockweiler	Santa Monica Venice, Los Angeles County		LHW'94	1947		Hyperion excavation Hyperion sewage disposal plant			DS
Venice City Beach/Dockweiler	Santa Monica Santa Monica, Los Angeles Co.		RW'94	1946-48	~14,000,000	excavation	hydraulically excavated from sand dunes		DS, R
Venice City Beach/Dockweiler	Santa Monica Santa Monica, Los Angeles Co.		TC'89	1947-48	14,000,00	Hyperion sewage disposal plant excavation		sand from sand hills	R
Venine City Reach/Destrucites						nearby sand hills (Hyperion	sand hydraulically removed from hills, transported to beach via		
Venice City Beach/Dockweiler Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles County Santa Monica Playa Del Rey, Los Angeles Co		Shaw'80 LHW'94	1948 1938	13,984,900	excavation) Hyperion excavation	discharge pipes		DS
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles County		Shaw'80	1938	1,803,660	nearby sand hills Marina Del Rey Harbor (sand			
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW'94	1969	389,000	trap) bypassing	bypassed		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW'94	1975	10,000	Marina Del Rey Harbor (sand trap) bypassing	bypassed		
						Marina Del Rey Harbor (sand			
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW'94	1981	217,000	trap) bypassing Marina Del Rey Harbor (sand	bypassed		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW'94	1987	35,000	trap) bypassing	bypassed		
	/I		1 1				1		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		TC'89	1938	1 800 000	nearby hills	Dockweiler: from El Segundo/LA City border to Marina Del Rey		R

	Duration of						
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects no fill deposition after March 31 due to grunion spawning; avoid least turn	Monitoring	Notes	Ref. ID Permit/FC Ref.	See Also
USACOE			nesting			CD-025-83 CDP 4-83-473	CD-53-84; CD-12-85;
USACOE						CD-025-83 CDP 4-83-257	
		Section 111, RHA					
USACOE		1968					
USACOE			disposal site diked to minimize impacts to grunion; return flow clearer due		notes ocean disposal is more costly than beach disposal	CD-060-86	CD-43-86; CD-25-83; CD-53-84
USACUE			to dike decanting		notes ocean disposar is more costly than beach disposar	CD-000-60	
			use of diked beach disposal proposed to minimize impacts to grunion spawning after March 15			CD-004-89	CD-25-83; CD-53-84; CD-43- 86/CD-60-86
						05 001 00	0.000
USACOE			need to protect least terns, grunions, snowy plover; limit post-March 31 disposal to diked or single-point disposal; map for plovers pre-disposal			CD-052-94	
DR, DS	USACOE					CD-030-99	
	degraded rapidly						
	fill downgraded rapidly				source: Shaw 1980		
					source: USACOE-LA 1974		
					source: USCOE-LA (Las Tunas) 1974 source: Griggs and Savoy 1986		
					source: Shaw 1980		
		\$88,000			source: USACOE-LA 1986 (oral)		
			"Nullified downdrift erosion damage caused by Santa Monica breakwater				
		\$250,000	and resultant. Today's beach is totally artificial & much wider today than natural beach of 50 years ago."		source: Hall 1952		
			, ,				
	major portion there after 4yrs				source: Johnson 1950		
	1949 still there;						
	estimated life=10 yr	\$10,500			sources: Johnson, 1950; Hall 1952; Shaw 1980		
					source: Shaw 1980		
		\$7,000			source: Shaw 1980		
USACOE			severe impacts to least tern nesting			CD-002-98	
					widehed beach to ava width of 6001 ( Ishares 4050) to 0001 (17		
	1 mil.yd <sup>3</sup> /yr initially				widened beach to avg. width of 600' (Johnson 1950) to 800' (Kenyon 1950)		
					source: Shaw 1980		
					source: Shaw 1980		

					Dredge/Fill Volume		1		
Site	Cell City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
	, ,		T T		3 /		"placed along 8,600 ft of Dockweiler beach southerly from the		
							Ballona Creek jetties. Bulldozers, conveyor belts and dump		
Dockweiler Beach Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		RW'94 LHW'94	1956 1956		electric power plant excavation	trucks were used to move the sand."		upland excavation fill
Dockweller Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW 94	1956	2,400,000	Scattergood power plant			DS
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles County		Shaw'80	1962	3.202.150	Marina Del Rey	downcoast of Ballona Creek		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW'94	1960-62		Marina Del Rey			DS
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		TC'91	1962	3,000,000				harbor construction
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW'94	1963		Marine Del Rey			DS
Dockweiler Beach Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co Santa Monica Playa Del Rey, Los Angeles Co		TC'91 RW'94	1963 1969	<7,022,667	entrance of Marina Del Rey			maintenance dredging
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		TC'91	1975	10,667	entrance of Manna Del Rey			maintenance dredging
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		RW'94	1981		entrance of Marina Del Rev			maintenance dredging
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		RW'94	1987		entrance of Marina Del Rey			maintenance dredging
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		ACOE'90	1987	31,000	Marine Del Rey	beach fill		DR, DS
						Maria - Dal Dan Hartan antonio			
				February 2, 1987		Marina Del Rey Harbor entrance			
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		FC	March 15, 1987	200.000	and approach channels, and Ballona Creek mouth	electric or diesel dredge; discharge pipeline on sand above supratidal zone	predominantly sand	DS, DR
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		RW'94	1988		Hyperion excavation expansion	supratidal zone	predominantly sand	DS, DK
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		LHW'94	1988		Hyperion excavation expansion			DS
DOGNACHOL DOUGH	Carita Moriloa II laya Del Ney, Los Aligeles Co	<b>+</b>	LIIVV 54	1300	155,000	Hyperion sewage disposal plant	"transported by conveyor beltacross Pacific Coast Highway to		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		RF '93	1989	1,097,880	excavation	Dockweiler Beach"		R
							"The sand was transported from the excavation site by a dry-		
							haul conveyor system through a 9-ft diameter steel casing		
							installed under the 4-lane coastal highway (Vista Del Mar) and		
							the bicycle path seaward of the highway to the beach, then along		
							the beach by conveyor to the placement site (either upcoast or		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		RW'94	1989	1,100,000	excavation	downcoast), and finally handled by use of bulldozers."		R
							either hopper dredge, clamshell dredge with disposal barge or		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		FC	March - May 1998	<123,000	Marina Del Rey Harbor (sand	hydraulic cuttterhead with pipeline; pipeline w/ single-pt. discharge in intertidal zone	99% sand	DS, DR
Dockweller Beach	Santa Monica   Flaya Dei Rey, Los Angeles Co		FC	1990	×123,000	uap)	discharge in intertidal zone	99 % Saliu	DO, DK
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		TC'89	occassionally		Marina del Rey	dredging		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		FC	1999	150.000	Marina Del Rey Harbor	ureaging	clean sand	DR, DS
	- Injection, serving the servi				,		North Jetty dredging and related federal project; to widen beach		,
							by 100 ft at end of Torrance Blvd, Redondo Beach and		
Dockweiler Beach	Santa Monica Playa Del Rey, Los Angeles Co		CDP	1999	215,655	Marine Del Rey	Dockweiler	clean sand	DR, DS
El Segundo	Santa Monica El Segundo, Los Angeles Co.		TC'89	1936	1,800,000	nearby dunes			R
									upland excav./ beach
El Segundo	Santa Monica El Segundo, Los Angeles Co.		TC'91	1936	1,800,000		1.8 mi long; 200 ft wide		rest.
El Segundo	Santa Monica El Segundo, Los Angeles Co.		TC'89	early 1980s	750,000		in conjunction with groin construction		R
El Segundo	Santa Monica El Segundo, Los Angeles Co.		TC'91	early 1980s	750,000	- Mala and			beach widening
El Segundo	Santa Monica El Segundo, Los Angeles Co. Santa Monica El Segundo, Los Angeles Co.		LHW'94 RW'94	1984 1988		offshore Hyperion excavation expansion	day, and and of Charles are in		nourishment
El Segundo El Segundo	Santa Monica El Segundo, Los Angeles Co. Santa Monica El Segundo, Los Angeles Co.		RW 94 RW'94	1989/90		Hyperion excavation expansion	downcoast of Chevion groin		D
El Segundo	Santa Monica El Segundo, Los Angeles Co.		LHW'94	1989-90		Hyperion excavation expansion			DS
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		LHW'94	1947	100,000				nourishment
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		TC'91	1947	57,000				beach restoration
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		RW'94	1947	?220,000				
				once during	,,,,,				
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		TC'89	1940s					R
				once during					_
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co	1	TC'89	1950s					R
Badanda Basak	Santa Monica Redondo Beach, Los Angeles Co		TC104	1956-58					navigation/beach
Redondo Beach Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co Santa Monica Redondo Beach, Los Angeles Co		TC'91 RW'94	1956-58	?220.000				erosion control
TOGOTIGO DOGOTI	Canta Monica Treading Deadin, Los Angeles Co	<b>+</b>	F. V V 54	1302	: 220,000				
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		TC'89	1968	1,400,000	offshore	pumped		R
			1.222		.,,				
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		TC'91	1968	1,405,961		1.2 mi long; increased beach to avg width of ~225 ft		beach erosion control
							7800ft long; source was 30-60 ft below MLLW, ~1700' offshore;		
De des de Breeds	Conta Marian Budanda Banda Landa da G		mus :	4000	4 400 000	. Walana	"A hopper dredge and floating pipeline operated in a water depth		
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		RW'94	1968	1,400,000	ottsnore	of about 37 ft, and pumped sand to shore."	native 0.5 mm	
Redondo Beach	Redondo Beach, Los Angeles Palos Verdes County		Shaw'80	1968	1,398,490	offshore	deposited on Redwood Beach, Topaz St. to Malaga Cove, using hydraulic pipeline from 9-20 m below MLLW	~400,00 cy migrated N into King Harbor by mid-1969	
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co	-	LHW'94	1968 1968-69	1,398,490	offshore	nyurauno pipeline irom 9-20 m below MLLW	King Harbor by Illid-1969	nourishment
redolido Deatri	Carita Monica Tredondo Deach, Los Angeles Co	1	LITVV 94	1900-09	1,400,000	OHOHOTE			groin and
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		SPCA'76	1970					replenishment
			0. 010						,
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		TC'91	1971	1,020,000				
	Redondo Beach, Los Angeles		1.77		.,,,,		deposited beach using hydraulic pipeline from 9-20 m below		
Redondo Beach	Santa Monica County		Shaw'80	1971	999,855	offshore	MLLW		
	·								
								fine to medium grained sands,	
						King Harbor, harbor side of N		with only minor amounts of	
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co		FC	proposed 1991	6,000	breakwater	disposal in surf zone	gravel and/or fines	R, DS, DR
Dedends Desert	Out Marks But 5 5 1 1 5 5			0000	***	nearshore deposits from	transported by barge from dredge site to dump site, then		L
Redondo Beach	Santa Monica Redondo Beach, Los Angeles Co	1	<u> </u>	2000	230,000	previous Harbor dredging	hydraulically pumped from nearshore to onshore		K

	Duration of						
Applicant/Sponsor		Funding	Environmental Effects	Monitoring	Notes	Ref. ID Permit/FC Ref.	See Also
					alored in outside the of demonstrate from Marine Del Demistike.		
					placed in anticipation of downcoast erosion from Marina Del Rey jetties; no serious erosion in 1986. Source: USCOE-LA 1986		
					source: Shaw 1980		
					source: Shaw 1980		
		Section 111, RHA					
USACOE		1968					
1104005			The state of the s			ODD 400 04	
USACOE			no effects on endangered species; time to accommodate grunion			CD-057-86 CDP 129-81	
					source: Woodell and Hollar, 1991		
					,		CD-23-88; CD-31-91; CD-53-92;
USACOE			severe impacts to least tern nesting			CD-002-98	CD-68-94; CD-88-94; ND-112-94; ND-22-96
00/1002			octors impacts to load to in mosting		result of periodic nourishment: "wide beach stabilized by groins and by	05 002 00	110 22 00
USACOE					the King Harbor breakwater (CA-DNOD 1977)."	CD-022-99	
USACOL							
LA Causti						App. #5-99-232 (PE-LB)	
LA County					1.8 miles of beach; source: Hall 1952	(PE-LB)	
Chevron USA, Inc				3 years required by permit; no report	source: Hall 1952		
				, , , , , , , , , , , , , , , , , , ,	source: Pratt 1984		
					source: Coastal Frontiers Corp. 1992		
		\$7,000			source: Hall 1952		
LA County							
					source: USACOE-LA 1959 (So.Cal.)		
	by mid-1969 30% of						
USACOE	fill had migrated N				source: USACOE 1970, Shaw 1980		
	30% lost in year 1; reshaped and						
	terminated		sand tends to migrate N and S; causes shoaling in King Harbor, Redondo				
	successfully	\$1,500,000	Harbor		sources: Shaw 1980; USACOE-LA 1970; Saville 1981		
		\$2,400,000			source: CA-DNOD 1976		
					source: Pipkin 1986; questioned and doubted by Weigel 1994 for lacking		
	destroyed, winter 1983	\$2,400,000			original source		
USACOE			exceptionally dense marine fauna			CD-025-91	
city of Los Angeles			beach is 180 ft. wide		from http://beaches.co.la.ca.us/scripts/redondo1.htm		
					, , , , , , , , , , , , , , , , , , , ,		

	I	T		1	1		Dredge/Fill Volume				
Site	Cell	City/County	Latitude	Longitude	Databaso	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
One	OC!!	only/ocumy	Lutituuc	Longitude	Dutubusc	Date of project	( <b>y</b> u )	Hyperion sewage disposal plant	Dreage Transport metrica	Dreagen in Gharacteristics	Activity
Santa Monica Bay Beaches	Santa Monica	Santa Monica, Los Angeles Co.			RF '93	1947		excavation			upland excavation fill
Santa Monica Bay Beaches	Santa Monica	Santa Monica, Los Angeles Co.			RF '93	1960-1963		Marina Del Rey excavation			harbor excavation
Santa Monica Bay Beaches	Santa Monica	Santa Monica, Los Angeles Co.			TC'91	1947-1948	14,000,000		~7 mi. long; avg. beach width 600-800 ft		upland excavation fill
Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			TC'89	1927					K
Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			TC'91	1927	500,000		0.2 mi long; beach width 200ft		beach restoration
Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			RW'94	1927		Outer LA Harbor	e.z minong, bodon matir zook		Dodon roctoration
								Fillet south of San Gabriel River		migrated E along breakwater	
Cabrillo Beach	San Pedro	Los Angeles, Los Angeles County			Shaw'80	1927	496660			into harbor	
0.1.111.00						1010		Fillet south of San Gabriel River		migrated into harbor and	
Cabrillo Beach	San Pedro	Los Angeles, Los Angeles County			Shaw'80	1948	2866251	jetty		offshore	
Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			TC'91	1948	2,536,500		0.4 mi long: beach width 500 ft		beach restoration
Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			RW'94	1948		Outer LA Harbor	6.4 millorig, beach width 500 ft		beachirestoration
Gabrino Bodon	ourr ouro	Carr Care, 2007 ingeloc Co.				1010	2,000,000	Catal Extriared			
Cabrillo Beach	San Pedro	Los Angeles, Los Angeles County			Shaw'80	1963	1202440	Los Angles Harbor, West Basin		stabilized beach at groin	
Cabrillo Beach Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			RW'94	1963		West Basin, LA Harbor	pumped		
Caprillo Beach	San Pedro	San Pedro, Los Angeles Co.			TC'89	1964	1,300,000		in conjunction with terminal groin built in 1962		K
Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			TC'91	1964	1,226,667				navigation
Cabrillo Beach	San Pedro	San Pedro, Los Angeles Co.			RW'94	1991		Hyperion facility	trucked	coarser than original sand	
Long Beach	San Pedro	Long Beach, Los Angeles Co.			TC'91	1955		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		3	harbor construction
_											beach widening/
Long Beach	San Pedro	Long Beach, Los Angeles Co.	1		TC'91	1942-43	>6,000,000		~4 mi long		navigation
Long Beach	San Pedro	Long Beach, Los Angeles Co.			TC'91	1945-46	800,000				navigation
Long Beach	San Pedro	Long Beach, Los Angeles Co.			RW'94	1943-46	~6 000 000	Los Angeles River delta	placed along 4 miles from Rainbow Pier east to ~ Belmont Pier		flood control dredging
Long Dodon	Carr Curo	Long Deadin, Los Arigeres Co.	1		1117 04	10-10-40	-0,000,000	200 Angeles Paver della	places along 4 miles from Hambow Fiel east to - Defillont Fiel		
Long Beach	San Pedro	Long Beach, Los Angeles Co.			RW'94	1945-46	800,008	channel dredged in Alamitos Bay	placed along beach updrift of entrance channel to Bay		
Long Beach City Beach	San Pedro	Long Beach, Orange Co.			Shaw'80	1946		Alamitos Bay Channel	-		
Long Beach	San Pedro	Long Beach, Los Angeles Co.			TC'89	1946 to 1989	9,000,000 +				R
Long Beach	San Pedro	Long Beach, Los Angeles Co.			TC'91	1975-85	~2,026,670		beach 300-1200 ft wide	00.05% and - 50.00	navigation
Long Beach	San Pedro	Long Beach, Los Angeles Co.			FC	1996-1998	100.000	Golden Shore Public hoat launch	4000 truck trips (placed b/w 1st Pl and 15th Pl.)	90-95% sand = fill; 88.6 - 99.2% sand = site	DR, R
Long Beach	Sair i euro	Long Beach, Los Angeles Co.			10	1990-1990	103,000	Golden Shore i ablic boat laurich	4000 track trips (placed b/w 1st 1 rand 15ti11 i.)	39.2 // Sariu - Site	DIX, IX
Long Beach (surf zone)	San Pedro	Long Beach, Los Angeles Co.			FC	1999	100-120,000	West Basin, Long Beach Harbor	disposal in surf zone west of Alamitos Bay west jetty		DR, R
Seal Beach	San Pedro	Seal Beach, Orange County			LAD93-1	1954	800,000	?	, , ,		
Seal Beach	San Pedro	Seal Beach, Orange County			LAD93-1	1955		Long Beach Marina excavation			replenishment
Seal Beach	San Pedro	Seal Beach, Orange County			LAD93-1	1956		Outer Anaheim Harbor			replenishment
Seal Beach	San Pedro	Seal Beach, Orange County			TC'91	1958	800,000	San Gabriel River or Navy			
Seal Beach	San Pedro	Seal Beach, Orange County			RW'94	1959	?250,000 or 200,000	harbor	placed on SE section of beach bisected by groin		
Seal Beach	San Pedro	Seal Beach, Orange County			Shaw'80	1959	248330	Anaheim Bay	proced on the decision of boddin blooding by grown		
Seal Beach	San Pedro	Seal Beach, Orange County			LAD93-1	1959	225,000	?			replenishment
Seal Beach	San Pedro	Seal Beach, Orange County			SPCA'76	1960					groin and fill
0 10 1											
Seal Beach Seal Beach	San Pedro San Pedro	Seal Beach, Orange County			TC'91 LAD93-1	1960 1967	250,000	San Gabriel River	1.0 mi long		beach erosion control replenishment
Seal Beach	San Pedro	Seal Beach, Orange County Seal Beach, Orange County			TC'91	1968	70,000	Sali Gabilei Rivei			repiensiment
Coar Boadin	Curr Curc	Coar Boadin, Crango Coarry				1000	70,000	Anaheim Bay Naval Weapons			
Seal Beach	San Pedro	Seal Beach, Orange County			LAD95	1983	250,000				R
									dredged via hydraulic suction dredge; discharged into intertidal		
								Anaheim Bay Naval Weapons	zone from 16-26" diameter pipeline running from harbor		
Seal Beach	San Pedro	Seal Beach, Orange County			FC	1983	350,000		entrance to beach; Sept. '82 - Feb. '83		R, DS, DR
Seal Beach	San Pedro	Seal Beach, Orange County			RW'94	1983	250,000	Anaheim Bay Naval Weapons Station	maintenance dredging		
Soul Doubli	Carr Curo	Soar Bodon, Grange County				1505	200,000	Anaheim Bay Naval Weapons	mantonano drouging		
Seal Beach	San Pedro	Seal Beach, Orange County			P,Y'89	1983	250,000	Station			
								Anaheim Bay Naval Weapons			
Seal Beach	San Pedro	Seal Beach, Orange County	1	1	LAD93-1	1983	80,000 - 250,000		dredged from Bay approach and placed on East Beach	very fine sand	replenishment
Sool Boook	Can Dodro	Soal Booch, Orango County			LAD93-1	1988	110,000	Anaheim Bay Naval Weapons	dradged from Outer Pay and placed on East Paget		ronloniohmont
Seal Beach	San Pedro	Seal Beach, Orange County			FWD99-1	1900	110,000	Anaheim Bay Naval Weapons	dredged from Outer Bay and placed on East Beach		replenishment
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.			LAD95	1945	202,000				R
					1			Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.			P,Y'89	1945	202,000	Station			R
					D1180	40:-		Anaheim Bay Anaheim Bay			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co. Huntington Beach, Orange Co.	1		RW'94	1945		Naval Weapons Station	new harbor construction	aradad ataadily	
Surfside-Sunset Beach Surfside/Sunset Beach	San Pedro San Pedro	Huntington Beach, Orange Co. Huntington Beach, Orange Co.			Shaw'80 TC'91	1945 1945	201278	Santa Ana River		eroded steadily	+
Garisiae/Gariset Death	Carri euro	Transligion beach, Oldlige Co.			1031	1040	200,333	Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.			LAD95	1947	1,220,000				R
								Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.			P,Y'89	1947	1,220,000				
	0 0	Utantia stan Basak S			DIAMO:	40:-		Anaheim Bay Anaheim Bay	and the second of the second o		
Ourfelds (Ourseld B	San Pedro	Huntington Beach, Orange Co. Huntington Beach, Orange Co.			RW'94 Shaw'80	1947 1947		Naval Weapons Station Santa Ana River	new harbor construction	eroded steadily	
Surfside/Sunset Beach	San Pedro			1				Gunta Ana Niver		croded steadily	
Surfside-Sunset Beach	San Pedro				TC'91	1947	1 245 333				
	San Pedro San Pedro	Huntington Beach, Orange Co.			TC'91	1947	1,245,333	Anaheim Bay Naval Weapons			
Surfside-Sunset Beach					TC'91 LAD95	1947 1956	1,245,333 874,000				R
Surfside-Sunset Beach Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.					874,000	Anaheim Bay Naval Weapons Station Anaheim Bay Naval Weapons Station			R

	Duration of						
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring	Notes	Ref. ID Permit/FC Ref.	See Also
					source: Flick 1993		
					source: Flick 1993		
	initial losses 1cm/yr		sand migrated E into harbor		sources: Johnson, 1950; Kenyon, 1950; USACOE 1986 (oral)		
	migrated E into LA		Sand Hilgrated E Into Harbor				
	harbor "sand moved away"	\$100,000			source: Hall 1952; Shaw 1980 source: USA/CESPL Cabrillo Report, 1989		
	Sanu moveu away				Source. USA/CESFL Cabillio Report, 1969		
	migrated E into LA						
	harbor and offshore "sand moved away"	\$1,014,600			source: Hall 1952; Shaw 1980 source: USA/CESPL Cabrillo Report, 1989		
	"successful" but lost in						
	82/82 and 1988						
			originally cobble beach; eventually covered by sand; stabilized by groin in		source: Shaw 1980		
			1962		source: Shaw 1980; USACOE-LA 1986 (oral)		
LA County	10,000 yd <sup>3</sup> /yr lost						
	1987: beach is 250-						
	300 ft wide				source: Kenyon 1950; Herron 1987		
					source: Kenyon 1950; USACOE-LA 1986 (oral)		
	"relatively stable"						
					source: USACOE 1986		
City of Long Beach						CC-98-96 CDP-96-124	CDP 5-94-103
City of Long Beach USACOE							
USACOE USACOE					source: USACOE-LAD 1993 Rep. 93-1 Table 5-26 source: USACOE-LAD 1993 Rep. 93-1 Table 5-26		
USACOE					source: USACOE-LAD 1993 Rep. 93-1 Table 5-26		
					source: USACOE-LA 1980 (Seal Beach)		
USACOE					source: USACOE-LAD 1993 Rep. 93-1 Table 5-26		
USACOE		\$286,000			source: CA-DNOD 1976		
		\$286,000			source: USACOE-LA 1980 (Anaheim); CA Dept of Nav and Ocean Dev 1976		
USACOE		\$200,000			source: USACOE-LAD 1993 Rep. 93-1 Table 5-26		
					source: USACOE-LA 1980 (Anaheim)		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
			and the second of the second o				
USACOE			mortality of intertidal invertebrates; temporary increase in turbidity; nourishment timed to avoid grunion spawning			CD-011-82	
	quickly lost from						
USACOE	quickly lost from littoral zone				source: USACOE-LAD 1993 Rep. 93-1 Table 5-26		
USACOE					source: USACOE-LAD 1993 Rep. 93-1 Table 5-26		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
USACOE							
	steady loss, <2yr				source: Shaw 1980; Marx 1967		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
<u> </u>	steady loss				source: Shaw 1980; Marx 1967		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
	·	·				·	

						Dredge/Fill Volume				
Site	Cell	City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
Confeide/Conset Decel	Can Dades	Unation to Book Orong Co		D14/10 4	4050	074.000	Anaheim Bay Anaheim Bay			
Surfside/Sunset Beach Surfside-Sunset Beach	San Pedro San Pedro	Huntington Beach, Orange Co. Huntington Beach, Orange Co.		RW'94 Shaw'80	1956 1956		Naval Weapons Station Santa Ana River		eroded steadily	
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		TC'91	1956	890,667	Carta Aria Niver		croded steadily	
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		TC'91	1961			restored beach buffer		emergency
							Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD95	1964	4,000,000				R
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD95	1964	1,315,000	Anaheim Bay Naval Weapons Station			R
ourside/ourset beach	Sairr euro	Trumington Beach, Orange Co.		LAD93	1304	1,313,000	Seal Beach Naval Weapons			IX.
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD99	1964	4,000,000		created feeder beach, 500' wide x 9200' long; June		R
							Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		P,Y'89	1964	4,000,000				
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		P,Y'89	1964	1,315,000	Anaheim Bay Naval Weapons			
Surside/Surset Beach	Sali Feulo	Huntington Beach, Orange Co.		F,109	1904	1,313,000	Anaheim Bay Anaheim Bay			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		RW'94	1964	4,000,000	Naval Weapons Station	construction/channel deepening		
Surfside-Sunset Beach	San Pedro	Huntington Beach, Orange Co.		Shaw'80	1964	3999420	Anaheim Bay	initially expanded 150 m (x ft) in width (2790m/xft long)	migrated south	
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		TC'91	1964	4,000,000	A b - i - D N I M	1.7 mi long; ~450 ft wide feeder beach		beach erosion control
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD95	1971	2,260,000	Anaheim Bay Naval Weapons			
Suriside/Suriset Deach	Sairr edio	Trumington beach, Orange Co.		LADSS	1371	2,200,000	Seal Beach Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.	1	LAD99	1971	2,300,000		May		R
							Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		P,Y'89	1971	2,250,000				
Confeida (Consest Donat	Con De des	Ukuntinatan Bassin Oranga O	1	D1480.4	4074	0.000.000	Anaheim Bay Anaheim Bay			
Surfside/Sunset Beach Surfside-Sunset Beach	San Pedro San Pedro	Huntington Beach, Orange Co. Huntington Beach, Orange Co.		RW'94 Shaw'80	1971 1971		Naval Weapons Station Anaheim Bay	bypassing?		
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		SPCA'76	1971	2230490	Allalielli bay	bypassing?		replenishment
		g		0.07170						
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		TC'91	1971	2,364,000		1.1 mi long		beach erosion control
Surfside-Sunset Beach	San Pedro	Huntington Beach, Orange Co.		Shaw'80	1978	1489980	offshore			
Confrida/Conset Decah	San Pedro	Hustington Booch, Orange Co.		1 4 505	1979	4 664 000	offebore bossess			
Surfside/Sunset Beach Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co. Huntington Beach, Orange Co.		LAD95 LAD99	1979		offshore borrow offshore borrow	June: onto feeder beach		DR, R
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		P,Y'89	1979		offshore borrow	dure. Onto recaci beach		DIX, IX
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		RW'94	1979	1,644,000				
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		TC'91	1979	1,664,000		1.7 mi long; 500 ft wide		beach erosion control
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		87-10	1982	1,500,000	Anabaim Day Naval Managa			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD95	1983	500,000	Anaheim Bay Naval Weapons			
Ouriside/Ouriset Deach	Sairr edio	Trumington Beach, Orange Co.		LADSS	1905	300,000	Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		P,Y'89	1983	500,000				
							Anaheim Bay Anaheim Bay			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		RW'94	1983	500,000	Naval Weapons Station			maintenance dredging
Confoid of Connect Decah	Can Dades	Hustinetes Beech Oseans Co			1983	450,000	deadaine of Anabaim Day	discharged into intertidal zone from 16-26" diameter pipeline running from harbor entrance to beach; Sept. '82 - Feb. '83		D DC DD
Surfside/Sunset Beach Surfside/Sunset Beach	San Pedro San Pedro	Huntington Beach, Orange Co. Huntington Beach, Orange Co.		FC LAD95	1984		dredging of Anaheim Bay offshore borrow	running from narbor entrance to beach, Sept. 62 - Feb. 63		R, DS, DR
Curiside/Curiset Deach	Ouri Cuio	Transington Beach, Change Co.		E1D30	1004	1,000,000	Anaheim Bay Naval Weapons			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD95	1984	650,000				
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		P,Y'89	1984	1,500,000	offshore borrow			
							Anaheim Bay Naval Weapons			
Surfside/Sunset Beach Surfside/Sunset Beach	San Pedro San Pedro	Huntington Beach, Orange Co.		P,Y'89 RW'94	1984 1984	650,000 1,500,000				
Suriside/Suriset Beach	San Pedro	Huntington Beach, Orange Co.		RW 94	1904	1,500,000	Anaheim Bay Anaheim Bay			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		RW'94	1984	650.000	Naval Weapons Station	construction		
		J					3 borrow sites offshore of			
			1				Anaheim Bay and Surfside	hydraulic suction dredge; discharge via 16-26" diameter pipeline		
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		FC	1984	1,500,000	Beach (155 acres)	on surface of beach into surf zone; Oct. '83 - March '84	sand with 8% fines	N, R, DR
			1							
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.	1	TC'91	1985	2,293,000		1.1 mi long; 480 ft wide		beach erosion control
Canada Curioci Deacii	Odii i Guid		+	1031	1000	2,230,000	offshore borrow sites and	m. iong, 400 it wide		COUNT COORDING CONTROL
							Anaheim Bay Naval Weapons	dredged from offshore and from adjacent approach channel and		
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD99	1985	2,700,000		placed on feeder beach		DR, R
Confolds (Conset Descrip	Can Divide	Livetinates Basch Commun C	1	T-0:0 :	4007					
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.	-	TC'91	1987		Anahaim Pay Naval Wassess			no project
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		RW'94	1988	180,000	Anaheim Bay Naval Weapons Station	maintenance dredging		
Canada Curioci Deacii	Jun 1 Euro		+	IX V 34	1000	100,000	- Cuandii	mantenance dreaging		
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.	1	LAD95	1990	1,300.000	offshore borrow			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD95	1990	522,000	offshore borrow			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD99	1990		offshore borrow			DR, R
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		RW'94	1990		offshore borrow			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.	-	RW'94	1990		offshore borrow	26" outtor hood quotion dradge, deadered ante hanch		ne
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.	-	LAD-BNSS	1990	1,826,000		26" cutter head suction dredge, dredged onto beach	slightly contaminated with	DS
		İ	1	1			to a bossess of the office of	dredged by hydraulic suction dredge and transported to the		
					l I		two borrow sites offshore of	Idredged by hydraulic suction dredge and transported to the	PCBs and DDT; composite	

	Duration of				L		
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring	Notes	Ref. ID Permit/FC Ref.	See Also
	steady loss				source: Shaw 1980; Marx 1967 source: Marx 1967; Shaw 1980		
		Stage 1, Public Law					
USACOE		87-874 1962 Stage 1, Public Law			source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
USACOE		87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
USACOE		Stage 1			source: USACOE-LA 1999 CCSTWS Chapter 4 draft, December		
	~ half of fill lost in two						
	years downcoast	\$2,082,000 Stage 4a, Public Law			source: USACOE-LA 1969; 1986 (report)		
		87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
USACOE		Stage 4a			source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
		\$1,074,000			source: CA-DNOD 1976		
	"has controlled erosion	\$1,011,000					
	in this area"				source: USACOE-LA 1980(equity study, unpublished); 1986 (report)		
		Stage 7, Public Law 87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
USACOE							
	"has controlled erosion						
USACOE	in this area"				source: USACOE-LA 1980(Seal Beach); 1986 (report) source: Corps of Engineers records, A. Fuentes, 1986		
USACOL							
					source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
			mortality of intertidal invertebrates; temporary increase in turbidity;				
USACOE			nourishment timed to avoid grunion spawning		CD report notes that USACOE replenished sand in '56, '64, '71, '79 source: USACOE-LA 1995 (Surfside-Sunset/Newport)	CD-011-82	
					source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
					Source, USACOE-LA 1995 (Suriside-Suriset/Newport)		
1							
-							
			offshore impacts minimized by creation of shallow multiple, rather than single, dredge pit		previous nourishments by Corps: 1956, 64, 71, 79	CD-036-83	
	"periodic beach		pingo, a suge pit			22 000 00	
	nourishment maintains stability"				source: USACOE-LA 1986 (oral and report); CA Dept of Nav and Ocean Dev 1977 (atlas of erosion and study of nourishment)		
USACOE	required interval: 5-6	Stage 8	"stable beach with seasonal variationssand is eventually transported		source: USACOE-LA 1999 CCSTWS Chapter 4 draft source: Armstrong 1987; Spencer 1987; USACOE-LA 1987(unpublished		
	years		offshore and south"		project summary)		
		Stage 9, Public Law					
		87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/Newport) source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
USACOE		Stage 9			source: USACOE-LA 1995 (Sunside-SunserNewport) source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
USACOE		\$6.9 mill; \$3.78/yd3			M. Change, pers. Communication in report		
USACOE						CD-027-89	CD-11-82; CD-36-83; CD-12-84; CD-40-89; CD-34-90; CD-52-90
* *		•			•		

	1					Dredge/Fill Volume				
Site	Cell	City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		FC	1997	1 600 000	offshore borrow	March-June		N, DS
Carloido Carlost Bodon	Curr Curc	Trainington Bodon, Grange Co.			1001	1,000,000	onere borrow	Oct. '96 - March '97; cutterhead dredge in 30-45' H2O offshore		11, 50
								of Bolsa Chica Beach; floating pipeline to beach disposal in	slightly finer than receiver	
Surfside/Sunset Beach Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		LAD95 LAD99	1997		offshore borrow offshore borrow	berm 350-900' wide, 5700' long, +- 13' MLLW	beach	R DR, R
Suriside/Suriset Beach	San Pedro	Huntington Beach, Orange Co.	-	LAD99	1997	1,000,000	offshore boffow	dredged from -30' MLLW		DR, R
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		FC	1997			June-July		N
							3 offshore borrow sites covered			
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		FC	1998		under CD-36-83	(East Jetty to Phillips St)		N, R, DS, DR
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		FC	1999	133 000	Anaheim Bay	pump over jetty, spread on beach using bulldozer		DR, DS
ouriside/ouriset beach	Carr Caro	Transington Beach, Grange Go.		10	1000	100,000	Andricini Bay	parity over jetty, spread on beach using bandozer		DIX, DO
								dredge offshore, then discharge behind training dike placed at		
Surfside/Sunset Beach	San Pedro	Huntington Beach, Orange Co.		FC	1999	700,000	approach channel, Anaheim Bay	~+12 ft MLLW, return H20 downcoast (East Jetty to Phillips St)		N, R, DS, DR
Huntington Beach (Santa Ana River										
Project)	San Pedro	Huntington Beach, Orange Co.		FC	1988	1 000 000	Santa Ana River			N, DR
. 10,000,	Curr Curc	Transington Bodon, Grange Co.		10	1000	1,000,000	Carra / tra / tro	excavated above MSL and transported downcoast to west		11, 511
Santa Ana River County Beach	San Pedro	Newport Beach, Orange Co.		LAD99	1997	-140,000	Newport Beach (adjacent)	Newport and placed above MSL		excavation
Newport Beach	San Pedro	Newport Beach, Orange Co.		TC'91	1920					
Newport Beach	San Pedro	Newport Beach, Orange Co.		TC'91	1929	4 504 5 10	Nament Harber	between Newmort Discount Heaters are		
Newport Beach Newport Beach	San Pedro San Pedro	Newport Beach, Orange Co. Newport Beach, Orange Co.		Shaw'80 Shaw'80	1919-1930 1933-1935		Newport Harbor Newport Harbor	between Newport Pier and Harbor entrance  46th St. to Newport Pier		
Newport Beach	San Pedro	Newport Beach, Orange Co.		TC'91	1933-1935	1,933,333	non-port riarbor	Total St. to Homport Field		
Newport Beach	San Pedro	Newport Beach, Orange Co.		Shaw'80	1934-1936		Newport Harbor	Newport Pier to Newport Harbor Entrance		
						, , , , , , , , , , , , , , , , , , , ,				
Marine of Breach	O D. d.	Name and Base de Construction		TOIO	1001.05	F 700 000				
Newport Beach Newport Beach	San Pedro San Pedro	Newport Beach, Orange Co.		TC'91 LAD95	1934-35 1935	5,706,667	Newport Harbor			D
Newport Beach	San Pedro	Newport Beach, Orange Co.  Newport Beach, Orange Co.		LAD95	1935		Newport Harbor			R
Newport Beach	San Pedro	Newport Beach, Orange Co.	-	RW'94	1935		Newport Harbor			T.
Newport Beach	San Pedro	Newport Beach, Orange Co.		RW'94	1935		Newport Harbor			
Newport Beach	San Pedro	Newport Beach, Orange Co.		P,Y'89	1935		Newport Harbor			
Newport Beach	San Pedro	Newport Beach, Orange Co.		P,Y'89	1935		Newport Harbor			
Newport Beach	San Pedro	Newport Beach, Orange Co.		DS'85	1935		Newport Harbor	placed between Santa Ana River and Newport Pier		
Newport Beach Newport Beach	San Pedro San Pedro	Newport Beach, Orange Co. Newport Beach, Orange Co.		LAD95 RW'94	1965 1965		Newport (Balboa) Newport (Balboa)	36th - 47th St.s 36-47 St.s		K
Newport Beach	San Pedro	Newport Beach, Orange Co.		P,Y'89	1965		Newport (Balboa)	36-47 St.s		
Newport Beach	San Pedro	Newport Beach, Orange Co.		TC'91	1965	124,000		00 11 000		
Newport Beach	San Pedro	Newport Beach, Orange Co.		Shaw'80	1965-1967	333,285	Newport Harbor	deposited b/w Newport Pier and 50th St.		
Newport Beach	San Pedro	Newport Beach, Orange Co.		LAD95	1966		Newport (Balboa)	36th - 47th St.s		R
Newport Beach	San Pedro	Newport Beach, Orange Co.		RW'94	1966		Newport (Balboa)	36-47 St.s		
Newport Beach Newport Beach	San Pedro San Pedro	Newport Beach, Orange Co.  Newport Beach, Orange Co.		P,Y'89 TC'91	1966 1966	60,000	Newport (Balboa)	36-47 St.s		
Newport Beach	San Pedro	Newport Beach, Orange Co.		LAD95	1967		Newport (Balboa)	36th - 47th St.s		R
Newport Beach	San Pedro	Newport Beach, Orange Co.		RW'94	1967		Newport (Balboa)	36-47 St.s		
Newport Beach	San Pedro	Newport Beach, Orange Co.		P,Y'89	1967		Newport (Balboa)	36-47 St.s		
Newport Beach	San Pedro	Newport Beach, Orange Co.		TC'91	1967	150,000				
Navanad Danah	Can Dadaa	Navanad Basah, Oranga Ca		LADOF	1000	404 000	Name (Dalhas)	204h 474h 04 a with ataul assiss at 40 44 404h 04 a)		_
Newport Beach	San Pedro	Newport Beach, Orange Co.		LAD95	1968	494,000	Newport (Balboa)	36th - 47th St.s, with steel groins at 40, 44, 48th St.s)		IN.
Newport Beach	San Pedro	Newport Beach, Orange Co.		LAD95	1968	264.000	Newport (Santa Ana)	40-46th St.s		R
							,	February:placed on beach between 32nd, 50th Streets with 258'		
Newport Beach	San Pedro	Newport Beach, Orange Co.		LAD99	1968	495,000		steel sheetpile groin at 40th St.		R
Novement Deach	Can Dada	Newwart Basely Orange C		1.4000	1000	240.000		November: placed on beach between 32nd, 50th Streets with		L
Newport Beach Newport Beach	San Pedro San Pedro	Newport Beach, Orange Co.  Newport Beach, Orange Co.		LAD99 RW'94	1968 1968	246,000	Newport (Balboa)	groins at 44th St. (191') and 48th St. (200') 36-47 St.s, with steel groins at 40, 44, 48 Sts		K
Newport Beach	San Pedro	Newport Beach, Orange Co.		RW 94 RW'94	1968		Newport (Baildoa)	40-46 St.s		
Newport Beach	San Pedro	Newport Beach, Orange Co.		P.Y'89	1968		Newport (Balboa)	36-47 St.s, with steel groins at 40, 44, 48 Sts		
Newport Beach	San Pedro	Newport Beach, Orange Co.		P,Y'89	1968		Newport (Balboa)	40-46 St.s		
									upcoast eroded severely;	
Newport Beach	San Pedro	Newport Beach, Orange Co.		Shaw'80	1968		Newport Beach (adjacent)	placed around groin at 40th St.	downcoast stable	
Newport Beach	San Pedro	Newport Beach, Orange Co.		Shaw'80	1968	240,488	Newport Harbor	44th St. groin; temporarily widened to 30 to 75 m (x to y ft)		2 groins &
Newport Beach	San Pedro	Newport Beach, Orange Co.		SPCA'76	1968					replenishment
,				0.0770						.,
Newport Beach	San Pedro	Newport Beach, Orange Co.		TC'91	1968	494,000		"extended beach berm to avg. width of 250 ft"		beach erosion control
Newport Beach	San Pedro	Newport Beach, Orange Co.		TC'91	1968	240,000		"beach widened to width of 99-248 ft."		beach erosion control
Nowport Pooch	Con Dadas	Nowport Booch Comme Co		1 4505	1000	750 000	Conto Ano Bivor	40 46th St.a. with rook groins at 30, 40, 50, 50th St.a.		L
Newport Beach	San Pedro	Newport Beach, Orange Co.		LAD95	1969	/50,000	Santa Ana River	40-46th St.s, with rock groins at 36, 48, 52, 56th St.s February: placed on West Newport Beach between Santa Ana		In.
Newport Beach	San Pedro	Newport Beach, Orange Co.		LAD99	1970	874 000	Santa Ana River	River and 36th St.		R
Newport Beach	San Pedro	Newport Beach, Orange Co.		RW'94	1969		Santa Ana River	40-46 St.s, with rock groins at 36, 48, 52, 56 Sts		
Newport Beach	San Pedro	Newport Beach, Orange Co.		P,Y'89	1969		Santa Ana River	40-46 St.s, with rock groins at 36, 48, 52, 56 Sts		
								between groins at 36th, 48th, 52nd, 56th Streets; beach widened		
Newport Beach	San Pedro	Newport Beach, Orange Co.		Shaw'80	1969-1970	747,604	Santa Ana River	to 45 to 106 m (x to y ft)		
Newport Beach			1		1	I		i		I
	Con Doda	Nowport Booch Oreses Ca		LADOE	1070	404 000	Conto Ano Divor	21 46th Ct a		D
Newport Beach Newport Beach Newport Beach	San Pedro San Pedro	Newport Beach, Orange Co. Newport Beach, Orange Co.		LAD95 RW'94	1970 1970	124,000	Santa Ana River Santa Ana River	31-46th St.s 31-36 St.s		R

	Duration of						
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring project extension; placement limited to	Notes	Ref. ID Permit/FC Ref.	See Also
				non-public portion of beach; in addition,			
USACOE			single-point discharge to minimize impacts to grunion and least terns.	turbidity monitoring to determine efficacy of filter system		CD-028-97	ND-58-95; CD-27-89
USACOE		0110			source: USACOE-LA 1995 (Surfside-Sunset/Newport)		
USACOE		Stage 10		turbidity monitoring; change in project	source: USACOE-LA 1999 CCSTWS Chapter 4 draft modification to previously-approved beach replenishment project		
USACOE			excavation of settling pond and discharge of sand on public beach with filter fabrics to minimize turbidity	due to unacceptable turbidity in previous design	including relocation of discharge site, modification of discharge method, and extension of time.	CD-067-97	CD-27-89; CD-28-97; ND-58-95; ND-03-97; ND-20-97
USACOE			,				CD-11-82; CD-36-83
					project updates timing of CD-36-83; feeder beach area is 1700 ft long		CD-21-88; CD-27-89; CD-52-90;
USACOE			to minimize grunion impacts: 1) single discharge point; 2) material			CD-065-99	CD-34-90
USACOE			restricted to feeder beach; 3) no discharge after 3/1/84; 4) discharge behind dike on backbeach		updates/supplements CD-12-82	CD-012-84	
USACUE			berind dike on backbeach			CD-012-64	
USACOE				COE will monitor turbidity and its effects on least terns in consultation w/ USFWS		CD-029-88	CD-13-81
USACOE		Stage 10			source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
USACOL		Stage 10			source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		
	1				odio. Oldi 1000		
	loss of 70,000 cy as of 1936; loss of 40,000						
USACOE	cy as of 1937;				source: Shaw 1980 ; USACOE-LA 1959 (Orange Co.) source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
USACUE					Source: USACOE-LA 1995 (Suriside-Surise)/ Newport		
					source: USACOE-LA 1969		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
CONCCE					Source. Control En 1999 (Curiside Curiside Memport)		
					source: USACOE-LA 1969		
USACOE					source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
	1965-68: 30 ft./yr avg				source: USACOE-LA 1969		
		Stage 2, Public Law					
USACOE		87-874 1962 Stage 2, Public Law			source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
USACOE		87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
USACOE		Stage 2			source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
USACOE		Stage 2			source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
		\$700,000			source: CA-DNOD 1976		
		\$700,000 (2 groins					
		plus fill)			source: USACOE-LA 1969; Shaw 1980 source: USACOE-LA 1969		
USACOE		Stage 3, Public Law 87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
					·		
USACOE		Stage 3			source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
		0.5					
USACOE		Stage 3, Public Law 87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
		1			1	ı L	l l

							Dredge/Fill Volume	1	I		
Site	Cell	City/County	Latitude	Longitude	Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
Oile	OCII	Onlyrodunty	Luttuuc	Longitude	Dutubusc	Date of project	(yu )	i iii odarce/one	Dieuge Hunsport meurou	Dreagen in Onaracteristics	4 groins &
Newport Beach	San Pedro	Newport Beach, Orange Co.			SPCA'76	1970					replenishment
											beach erosion
Newport Beach	San Pedro	Newport Beach, Orange Co.			TC'91	1970	900.000	Santa Ana River	1.6 mi length; 150-360 ft wide		control/flood control spoils
Nonport Bodon	Carr Care	Tremport Boach, Grange Co.			1001	1010	000,000	Carta / tra / tro	no nin longur, 100 000 it mas		ороло
Newport Beach	San Pedro	Newport Beach, Orange Co.			LAD95	1973	350,000	Santa Ana River	28-48ths Sts., with rock groins at 28, 32, 40, 48th St.s		R
									March: added on to existing groins at 40th (480') and 44th (470') Streets with rock; new rubblemound groins at 32nd (540') and		
Newport Beach	San Pedro	Newport Beach, Orange Co.			LAD99	1973	358,000		28th (600') Streets. Replenished b/w 32nd, 28th Streets		R
Newport Beach	San Pedro	Newport Beach, Orange Co.			Shaw'80	1973		Santa Ana River	between groins at 28th and 32nd Streets		
Newport Beach	San Pedro	Newport Beach, Orange Co.			RW'94	1973		Santa Ana River	28-48 St.s, with rock groins at 40, 48, 28, 32 Sts		
Newport Beach	San Pedro	Newport Beach, Orange Co.			P,Y'89	1973	358,000	Santa Ana River	28-48 St.s, with rock groins at 40, 48, 28, 32 Sts		
Newport Beach	San Pedro	Newport Beach, Orange Co.			SPCA'76	1973					3 groins & replenishment
Newport Beach	San Pedro	Newport Beach, Orange Co.			TC'91	1973	358,000				beach erosion control
Newport Beach	San Pedro	Newport Beach, Orange Co.			LAD95	1992		Santa Ana River	nearshore deposition		R, nearshore
									dredged from river channel; sieved; placed 300 ft offshore, 20 ft		
Newport Beach	San Pedro San Pedro	Newport Beach, Orange Co.			RW'94 ACOE95	1992 1992		Santa Ana River Santa Ana River	deep water, 3000 ft long mound	rocks	dredging
Newport Beach	San Peuro	Newport Beach, Orange Co.			ACCE95	1992	1,227,000	Santa Ana River	placed in nearshore proposed for '96/'97; transport via trucks from beach source site		
									to disposal site 2000' downcoast. Fill characteristics: +2' to -13'		
Newport Beach	San Pedro	Newport Beach, Orange Co.			LAD95	1997	140,000	Santa Ana County Beach Park	MLLW	same as receiver beach	DR, R
									excavated from above MSL, transported downcoast and placed		
Newport Beach Corona State Beach	San Pedro San Pedro	Newport Beach, Orange Co.  Newport Beach, Orange Co.			ACOE93	1997 1935	140,000	Santa Ana County Beach Park Newport Bay entrance channel	above MSL		excavation
Oorona Otate Death	odii i dulu	incorport beauti, Orange Co.			ACCESS	1000	,	remport day entrance chailler			upland excavation
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			TC'91	1928-30	"considerable amount"				spoils
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			TC'89	1930					Ŕ
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			SPCA'76	1964				*	groin and fill
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			RW'94	1964	94.000	San Juan Creek	1400' pocket beach created between N training wall of creek and Dana Point Harbor E breakwater		
Bonery otate Beach Fair	Occarisiac	Dana Form City, Grange Co.			1111 54	1504	54,000	Carr dan Creek	Dana i Gint Harbor E breakwater		
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			TC'91	1964	94,000		0.3 mi. long; 100-300 ft wide beach		beach erosion control
									~1400 ft. long; constructed with sand tight rubblemound jetty to		
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			NRC'94	1964	94,104		Dana Point Harbor		DS
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			Shaw'80	1964	94104	San Juan Creek	placed upcoast of creek and retained by groin (N training wall)		
								Camp Pendelton terrace			
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			RW'94	1966	690,000	deposits	hauled by truck; placed E from San Juan Creek for ~4500 ft		
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			SPCA'76	1966					replenishment
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			TC'91	1966	840,000		0.9 mi. long; 100-300 ft wide beach		beach erosion control
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			Shaw'80	1966	840401	San Juan Creek	downcoast bank creek	migrated south	beach erosion control
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			Shaw'80	1969	364653	San Juan Creek	upcoast of creek		
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			TC'91	1969	365,000				
Dahasu Stata Basah Bask	Occasido	Dana Baint City, Orange Ca			D)4//0.4	1969	242.000	San Juan Creek flood control			
Doheny State Beach Park  Doheny State Beach Park	Oceanside Oceanside	Dana Point City, Orange Co.  Dana Point City, Orange Co.			RW'94 TC'91	1970	128,000	restoration dredging			
Doheny State Beach Park	Oceanside	Dana Point City, Orange Co.			TC'91	1970	906,667				
Capistrano Beach Park (nearshore)	Oceanside	Dana Point City, Orange Co.			Shaw'80	1970		Dana Point Harbor	deposited downcoast of harbor as surfing reef		
Capistrano County Beach (nearshore)	Oceanside	Dana Point City, Orange Co.			CDP	1997	35,500	Dana Point Harbor (West Breakwater)		96% sand	DR, N
San Onofre State Beach	Oceanside	San Onofre, San Diego County			TC'89	occasionally since 1964		SONGS power plant excavation	deposited as hump in 1984		R
									·		
San Onofre State Beach South	Oceanside	San Clemente, San Diego County			RW'94	1964		SONGS power plant excavation	placed SE of SONGS to nourish beach		
San Onofre State Beach San Onofre State Beach	Oceanside	San Onofre, San Diego County			TC'91	1964 1964	204,000 203892	SONGS bluff executation	placed south of pineline		upland excavation fil
San Onorre State Beach	Oceanside Oceanside	San Onofre, San Diego Co. San Onofre, San Diego Co.			Shaw'80 Shaw'80	1964	203892 254865	SONGS bluff excavation SONGS bluff excavation	placed south of pipeline placed south of pipeline		
San Onofre State Beach	Oceanside	San Onofre, San Diego County			TC'91	1966	255,000	2 2	position popularies		upland excavation fil
San Onofre State Beach	Oceanside	San Onofre, San Diego County			TC'91	1967	10,000				upland excavation fil
San Onofre State Beach	Oceanside	San Onofre, San Diego Co.			Shaw'80	1967		SONGS bluff excavation	placed south of pipeline		
San Onofre State Beach	Oceanside	San Onofre, San Diego Co.			Shaw'80	1974	1601075	offshore	placed south of pipeline as nourishment		
San Onofre State Beach	Oceanside	San Onofre, San Diego County			TC'91	1974 1977	1,605,000		<del> </del>		unland executation fil
San Onorre State Beach	Oceanside	San Onofre, San Diego County San Onofre, San Diego Co.			Shaw'80	1977	220,000	offshore	placed south of pipeline as nourishment		upland excavation fil
San Onofre State Beach	Oceanside	San Onofre, San Diego County			TC'91	1978	46,000		p		upland excavation fil
San Onofre State Beach	Oceanside	San Onofre, San Diego Co.			Shaw'80	1978		offshore	placed south of pipeline as nourishment		
San Onofre State Beach	Oceanside	San Onofre, San Diego County			RW'94	1977-1980	270,000	offshore	placed SE of SONGS to nourish beach		
San Onofre State Beach	Oceanside	San Onofre, San Diego County			TC'91	1984	-				"laydown pad released
Oceanside City Beach	Oceanside	Oceanside, San Diego County			TC'91	1944	1,530,667			contained cobbles	navigation byproduct
•								Del Mar Boat Basin and		lost immediately; migrated	
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.			Shaw'80	1958	799884	Oceanside Harbor Del Mar Boat Basin and	disposed 6th to 9th St.	North	
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.			Shaw'80	1960		Oceanside Harbor	disposed 6th to 9th St.	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County			TC'91	1960	17,500				navigation byproduct
Oceanside City Beach	Oceanside	Oceanside, San Diego County			TC'91	1960	23,700				navigation byproduct

	Duration of						
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring	Notes Ref. ID	Permit/FC Ref. See Also	
		\$600,000			source: CA-DNOD 1976		
		\$600,000 (4 groins			source: USACOE-LA 1986 (report); CA Dept of Nav and Ocean Dev		
		and fill)			1976; Spencer 1985		
USACOE		Stage 4b & 5, Public Law 87-874 1962			source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
USACOE		Stage 4b & 5			source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
	beach is stable	\$1,100,000			source: CA-DNOD 1976 source: USACOE-LA 1986 (oral and report)		
USACOE	bodon lo otablo				source: USACOE-LA 1995 (Surfside-Sunset/ Newport)		
		proposed Stage 10,					
		Public Law 87-874					
USACOE		1962					
USACOE		Stage 10			source: USACOE-LA 1999 CCSTWS Chapter 4 draft		
USACOE					source: USACOE-LA 1993 "Existing State of the Orange Co. Coast"		
					source: USACOE-LA 1987(Oceanside); Shaw 1980 replenished as byproduct of upland excavation operations		
		\$247,000			source: CA Dept of Nav and Ocean Dev 1976		
					source: Price, R.C., 1966. Statement of the CA Dept. of Water Resources. Shore and Beach, 34(1):22-32.		
		\$247,000 (groin and			source: USACOE-LA 1978 (Doheny); CA Dept of Nav and Ocean Dev		
		fill)			1976; Shaw 1980 source: Price, R.C., 1966. Statement of the CA Dept. of Water		
					Resources. Shore and Beach, 34(1):22-32.		
		\$713,000			source: CA Dept of Nav and Ocean Dev 1976		
	12/66 and 1/67: groin failedstream runoff	\$713,000			source: USACOE-LA 1978 (Doheny), 1986 (report); CA Dept of Nav and Ocean Dev 1976; Shaw 1980		
	ianos otrosmiranon	ψ1 10,000			55641756V 1615, 61411 1666		
					source: USACOE-LA 1987 (Oceanside)		
					source: USA/CESPL and CA/DNOD 1978 inspection tour report		
					source: USACOE-LA 1987 (Oceanside); Shaw 1980		
					source: USACOE-LA 1987 (Oceanside)		
				monitoring plan; turbidity must remain			
			no disposal during grunion spawning; kelp beds and reefs in Doheny	less than 20% above natural non-storm conditions (0-50 NTUs) and dissolved			
County of Orange			Marine Life Refuge	O <sub>2</sub> can't drop below 5.0 mg/l	15' depth, 1000' long 5-97-232	FC CC-138-97	
			substantial sand "hump" migrated downcoast, preceded by erosional wave larger in magnitude than hump itself	by Scripps; Grove et al. 1987			
				, , , , , , , , , , , , , , , , , , ,	Services Flight and Warnetick 4000 CIO Ref. No. 00 20 E4 an		
					source: Flick and Wanetick, 1989, SIO Ref. No. 89-20, 51 pp. source: USACOE-LA 1987 (Oceanside)		
					source: USACOE-LA 1987 (Oceanside)		-
					source: USACOE-LA 1987 (Oceanside)		
					source: USACOE-LA 1987 (Oceanside)		
					source: USACOE-LA 1987 (Oceanside) source: USACOE-LA 1987 (Oceanside)		
					source: USACOE-LA 1987 (Oceanside)		
					·		
			"1987: Sand hump migrated ~2m/day. Extremely rapid decay of volume		source: Flick and Wanetick, 1989, SIO Ref. No. 89-20, 51 pp.		
			(decreased to 1/2 every 200 days). Migrating hump preceded by erosion		PROPERTY OF THE ACCUSATION OF		
	"held them for a year		wave (8 km long in >2 years)"		source: USACOE-LA 1987 (Oceanside); Grove et al. 1987		
	or two"				source: USACOE-LA 1986 (oral); 1987 (Oceanside)		
	eroded				source: USACOE-LA 1987 (Oceanside); Shaw 1980		
	eroded	I			source: USACOE-LA 1987 (Oceanside)		

						Dredge/Fill Volume				
Site	Cell	City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
							Del Mar Boat Basin and			
Oceanside City Beach Oceanside City Beach	Oceanside Oceanside	Oceanside, San Diego Co. Oceanside, San Diego County		Shaw'80 TC'91	1961 1961	482283 222,350	Oceanside Harbor	disposed 6th to 9th St.	eroded 2.5 - 6.5 m/yr in width	navigation byproduct
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1961	265,333				navigation byproduct
Oceanside Harbor	Oceanside	Oceanside, San Diego County		RF '93	1961	3,921,000	placed on area beaches			DR
							Del Mar Boat Basin and	au au		
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1963	3809905	Oceanside Harbor	9th St.	eroded immediately	contained cobbles
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1963	265,333			cobbles	beach erosion control/ harbor construction
Occasion Otto Book	0	Occasional Compliance Country		0004170	4000					groin and
Oceanside City Beach	Oceanside	Oceanside, San Diego County		SPCA'76	1963		Del Mar Boat Basin and			replenishment
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1965	111095	Oceanside Harbor	disposed 9th to 3rd St.	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1965	110,000	Oceanside Harbor			
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1966	683561	Del Mar Boat Basin and Oceanside Harbor	disposed 3rd to Minn. Ave	eroded	
Securioral City Beach	Coodiioido	Socialistas, can Biogo do.			1000			and the second s	0.0000	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1966		Oceanside Harbor			harden barren de la companya de la c
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1966	690,000	Del Mar Boat Basin and			harbor bypassing
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1967	177752	Oceanside Harbor	disposed 3rd to Tyson St.	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1967	180,000	Oceanside Harbor			
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1967	177,900				harbor bypassing
Occannida City Bassh	Occasida	Occapaido San Diese Ce		ChaIOC	1968	400004	Del Mar Boat Basin and Oceanside Harbor	disposed San Luis Boy to Wingsania Area	orodod	
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.	+	Shaw'80	1900	433924	Oceanside HaidOl	disposed San Luis Rey to Wisconsin Ave	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1968		Oceanside Harbor			
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1968	433,900	Dalling David David			harbor bypassing
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1969	352890	Del Mar Boat Basin and Oceanside Harbor	disposed San Luis Rey to 3rd St	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1969		Oceanside Harbor			h ash as has a saile a
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1969	353,000	Del Mar Boat Basin and			harbor bypassing
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1971	551554	Oceanside Harbor	disposed 3rd St. to Wisconsin Ave	eroded	
Oceanside City Beach Oceanside City Beach	Oceanside Oceanside	Oceanside, San Diego County Oceanside, San Diego County		RW'94 TC'91	1971 1971	550,000 551,750	Oceanside Harbor			harbor bypassing
Oceanside City Beach	Oceanside	Oceanside, San Diego County		1091	1971	331,730	Del Mar Boat Basin and			narbor bypassing
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1973	433924	Oceanside Harbor	disposed Tyson to Hay St	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1973	440.000	Oceanside Harbor			
Oceanside City Beach	Oceanside	Oceanside, San Diego County		1747.04	1913	440,000	Del Mar Boat Basin and			
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1975	559396	Oceanside Harbor	disposed Pine to Witherby St.	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1975	560,000	Oceanside Harbor			
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1975	559,750	Occariside Flarboi			harbor bypassing
,						•	Del Mar Boat Basin and			,, ,
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1976	550247	Oceanside Harbor	disposed Ash to Witherby St.	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1976	550.000	Oceanside Harbor			
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1976	550,000				harbor bypassing
Occupation Other Describ	0	Occasional Compliance Country		D14/10.4	4077	000 000	0			
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1977	320,000	Oceanside Harbor Del Mar Boat Basin and			
Oceanside City Beach	Oceanside	Oceanside, San Diego Co.		Shaw'80	1978	318908		disposed Ash to Witherby St.	eroded	
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1978	318,550		February	cobbles	harbor bypassing
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RW'94	1981	460 000	Oceanside Harbor			
Oceanside City Beach	Oceanside	Oceanside, San Diego County	1	RW'94	1981		nearshore off Oceanside	placed SE from Harbor on beach		
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1981	463,000		1.5 miles long	not coarse enough	harbor bypassing
										harbor hypassing/
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'91	1982	920,000				harbor bypassing/ beach erosion control
Oceanside City Beach	Oceanside	Oceanside, San Diego County		RF '93	1982		San Luis Rey River bed	trucked		R
Oceanside City Beach	Oceanside	Oceanside San Diogo Count:	-	CE'99	1986	450.000	Oceanside harbor	placed on beach near Tyson St.		DR, DS
Oceanside City Beach	Oceanside	Oceanside, San Diego County Oceanside, San Diego County	-	ACOE'90	1986		Oceanside harbor	beach fill		DR, DS
Oceanside City Beach	Oceanside	Oceanside, San Diego County		ACOE'90	1988		Oceanside harbor	beach fill		DR, DS
Oceanside City Beach	Oceanside	Oceanside, San Diego County		TC'89	1944 (frequently since)		harbor excavation, harbor bypassing			R
,										nav. byproduct/ beach
Oceanside City Beach	Oceanside	Oceanside, San Diego County	1	TC'91	1951-58	700,000				erosion control
Oceanside City Beach Oceanside City Beach	Oceanside Oceanside	Oceanside, San Diego County Oceanside, San Diego County		RW'94 RW'94	1962-1963 1965-1981	3,800,000 ~5,000,000	Oceanside Harbor excavation		sand and riverine cobbles	
Coouncide Oily Deaoil	Occarione	oscanside, oan Diego county		1111 04	1000-1001	5,550,000	San Luis Rey River (Whelan		cana and menine copples	
							Lake to Murray Rd) (San Luis	transported via surface roads, placed using bulldozers, graded,	medium grain size (95% on	L
Oceanside City Beach	Oceanside Oceanside	Oceanside, San Diego County		FC RW'94	1981 (12 mos) 1981-1982		Rey Flood Control Project) San Luis Rey riverbed	above and below MLLW datum trucked from site 7 miles from coast	200 sieve)	R
Oceanside City Beach	Oceanside	Oceanside, San Diego County		KW'94	1981-1982 1983 August to	923,000	Camp Pendelton/Oceanside	hydraulic pipeline dredge, pump, discharged in surf zone		
		Oceanside, San Diego County	1	FC	November		Harbor	(Municipal Pier to Forster St.)	silty sand	R, DS, DR

	Duration of							
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring	Notes	Ref. ID	Permit/FC Ref. See Also	
	eroded				source: USACOE-LA 1987 (Oceanside); Shaw 1980			
	eroded 8-22 ft/yr				source: Shaw 1980			
	all fill lost by 1968				source: USACOE-CERC 1984; Moffat and Nichol 1983; Shaw 1980			
		\$1,785,000			source: CA-DNOD 1976			
		, , ,						
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment			
					Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment			
	222424				Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
	eroded				source: USACOE-LA 1987 (Oceanside); Shaw 1980			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
	eroded				source: USACOE-LA 1987 (Oceanside); Shaw 1980			
								1
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment			
	eroded				Budget Report, prepared by Tekmarine, inc, CCSTWS87-4 source: USACOE-LA 1987 (Oceanside); Shaw 1980			
	eroded				source: USACOE-LA 1987 (Oceanside); Snaw 1980			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
	eroded				source: USACOE-LA 1987 (Oceanside); Shaw 1980			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment			
	222424				Budget Report, prepared by Tekmarine, inc, CCSTWS87-4 source: USACOE-LA 1987 (Oceanside); Shaw 1980			
	eroded				Source: USACOE-LA 1967 (Oceanside), Snaw 1960			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment			
					Budget Report, prepared by Tekmarine, inc, CCSTWS87-4 source: USACOE-LA 1987 (Oceanside); Shaw 1980			
	eroded				source: USACOE-LA 1987 (Oceanside); Shaw 1980			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
	eroded				source: USACOE-LA 1987 (Oceanside); Shaw 1980			
					source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment			
					Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
	1.105							
	eroded 2/78				source: USACOE-LA 1987 (Oceanside) (Coastal Cliff Sediments) source: USA/CESPL, 1987, Oceanside Littoral Cell Preliminary Sediment	<del>                                     </del>		
					Budget Report, prepared by Tekmarine, inc, CCSTWS87-4			
					source: Ryan, Joe, personal communications with Weigel source: USACOE-LA 1987 (Oceanside)			
					,			
	one season (expected 2-3 seasons)	64 000 000	bypassing inadequate		source: USACOE-LA 1987 (Oceanside); Spencer 1987; USACOE-CERC 1984; Moffat and Nichol Engineers 1983			
	2-0 SEdSUIS)	\$4,000,000	bypassing inducquate		1304, Worldt dilu Micror Engineers 1903	<del>                                     </del>		
					Constel Environmente (1000 A constitution de la con			
USACOE		lowest cost disp. Alt.			source: Coastal Environments 1999 Agua Hedionda Lagoon study			
USACOE		lowest cost disp. Alt.						
					"Each time the fill has eroded, often quite rapidly."			
	total loss +300,000				· · · ·			
	add'l by 12/59		fill migrated upcoast into nav. Channel		source: USACOE-LA 1960; Shaw 1980			
					source: USACOE-LA 1987 (Oceanside); Shaw 1980			
		Congressional authorization for						
USACOE		<\$3,000,000		none		CD-006-81		
			de de la collection of heathir areas in the second of the		source: Bagley and Whitson, Shore and Beach 1982			
USACOE			dredging: elimination of benthic organisms. DR and N: turbidity; timed after nesting season		3 prior coastal permits for same activity	CD-020-83	CD-6-81; Appeal #218-80	

						Dredge/Fill Volume				
Site Cell	City/County	Latitude	Longitude	Database	Date of project		Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
			<b>J</b>			Ų.,	sediment bypasses Oceanside			,
Occasida Ota Basak	Occasional Compliant Country			F0	1001 1000	400.000	Harbor-one beach site and two	later and a section of the section o	sand and silt, clean and dirty,	D DD
Oceanside City Beach Oceanside	Oceanside, San Diego County			FC	1984-1989	400,000	harbor sites	jet-pumped sand bypassing with underwater slurry pipeline	light and dark	R, DR
					3/15/90 - 7/30/90;					
					9/15/92 - 3/15/93;		Oceanside Harbor entrance and			
				=-	9/15/94 - 3/15/95;	=	navigation channels and sand	hydraulic dredge, buried/exposed pipeline (S of Oceanside		
Oceanside City Beach Oceanside	Oceanside, San Diego County			FC	9/15/96 - 3/15/97	500,000	тар	Public Pier and S of Tyler St.)		DS, DR
							Oceanside Harbor (entrance,	hydraulic or hopper dredge (south of Oceanside Pier) (beach or		
Oceanside City Beach Oceanside	Oceanside, San Diego County			FC	9/15/94 - 3/15/95	400,000				R, DS, DR
							San Diego Bay main channel			
	Oceanside, San Diego County Oceanside, San Diego County			FC	as of 1-11-98 Mar-00	102,000	(dredge area 1) Oceanside Harbor		sand with munitions	DR, DS, R
Occurside only beach	occariside, can biego county				Iviai 00		Occurside Harbor			
									Madien and a dec at SII 000	
Oceanside City Beach* Oceanside	Oceanside, San Diego County				8/24/01 - 9/23/01	421 000	Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.62 mm	N
Occurside only beach	occariside, can biego county				0/24/01 - 3/25/01	421,000	Charlote	Training Suction Hopper Greage		
									Madien and a dec at 500 044	
North Carlsbad Oceanside	Carlsbad, San Diego County				7/6/01 - 8/2/01	225 000	Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.14- 0.62 mm	N
Tional Canada	canosaa, can siege ceanty				770701 0/2701	220,000		Training duction riopper diougn	0.02 11111	
								l		
	Carlsbad, San Diego County			TC'91	1954	4,080,000		1.0 mile long, widened beach 396 ft		
	Carlsbad, San Diego County Carlsbad, San Diego County			TC'91 TC'91	1955 1957	111,000 232,000				
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			TC'91	1960	371,000				
	Carlsbad, San Diego County			TC'91	1961	225,000				
	Carlsbad, San Diego County			TC'91	1963	308,000				
	Carlsbad, San Diego County			TC'91 TC'91	1965 1967	223,000 160,000				
	Carlsbad, San Diego County Carlsbad, San Diego County			TC'91	1967	97,000				
	Carlsbad, San Diego County			TC'91	1972	200,000				
	Carlsbad, San Diego County			TC'91	1974	341,000				
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			TC'91	1976	392,000				
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego Co.			Shaw'80	1954	3000430	Agua Hedionda Lagoon	placed from 1060 m upcoast of mouth to 600 m S of outlet; widened beach avg. 30m (x ft)		
	Carlsbad, San Diego Co.			Shaw'80	1955		Agua Hedionda Lagoon	placed to south of Lagoon outlet		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego Co.			Shaw'80	1957		Agua Hedionda Lagoon	placed to south of Lagoon outlet		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego Co.			Shaw'80	1960		Agua Hedionda Lagoon	placed to south of Lagoon outlet		
Carlsbad State Beach Park Oceanside Carlsbad State Beach Park Oceanside	Carlsbad, San Diego Co. Carlsbad, San Diego Co.			Shaw'80 Shaw'80	1961 1963		Agua Hedionda Lagoon Agua Hedionda Lagoon	placed to south of Lagoon outlet placed to south of Lagoon outlet		
	Carlsbad, San Diego Co.			Shaw'80	1965		Agua Hedionda Lagoon	placed to south of Lagoon outlet		
	Carlsbad, San Diego Co.			Shaw'80	1967	159454	Agua Hedionda Lagoon	placed to south of Lagoon outlet		
	Carlsbad, San Diego Co.			Shaw'80	1969		Agua Hedionda Lagoon	placed to south of Lagoon outlet		
	Carlsbad, San Diego Co. Carlsbad, San Diego Co.			Shaw'80 Shaw'80	1972 1974		Agua Hedionda Lagoon Agua Hedionda Lagoon	placed to N and S of lagoon outlet placed to N and S of lagoon outlet		
	Carlsbad, San Diego Co.			Shaw'80	1976		Agua Hedionda Lagoon	placed to N and S of lagoon outlet		
	Carlsbad, San Diego Co.			Shaw'80	1979		Agua Hedionda Lagoon	placed to N and S of lagoon outlet		
Carlsbad State Beach Park Oceanside Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County Carlsbad, San Diego County			TC'91 TC'91	1979 1979	419,000 430,667				
Cansbad State Beach Lark Oceanside	Canada, San Diego County			1091	frequently since	430,007				
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			TC'89	1944		Agua Hedionda Lagoon			R
								excavated for San Diego G&E Co. plant; placed from 3500 ft N		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1954	~4,000,000	Agua Hedionda Lagoon	of lagoon entrance jetties to 2000 ft S of discharge jetties pumped as slurry into surf zone; placed downdrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1955	110,000	Agua Hedionda Lagoon	jetties		
								pumped as slurry into surf zone; placed downdrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1957	230,000	Agua Hedionda Lagoon	jetties		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1960	370 000	Agua Hedionda Lagoon	pumped as slurry into surf zone; placed downdrift of discharge lietties		
Ourisbad State Deadii i air. Ocediiside	Gangbau, Gan Diego County			1111 04	1900	310,000	rigua Ficuloriua Laguoti	pumped as slurry into surf zone; placed downdrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1961	225,000	Agua Hedionda Lagoon	jetties		
								pumped as slurry into surf zone; placed downdrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1963	307,000	Agua Hedionda Lagoon	jetties pumped as slurry into surf zone; placed downdrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1965	222,000	Agua Hedionda Lagoon	jetties		
								pumped as slurry into surf zone; placed downdrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1967	159,000	Agua Hedionda Lagoon	jetties		
Carlsbad State Beach Park Oceanside	Carlohad San Diogo County			DW/04	1060	07.000	Agua Hadianda Lagoan	pumped as slurry into surf zone; placed downdrift of discharge		
Canada State Death Fair OceanSide	Carlsbad, San Diego County			RW'94	1969	91,000	Agua Hedionda Lagoon	jetties pumped as slurry; placed downdrift and updrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1972	200,000	Agua Hedionda Lagoon	jetties		
								pumped as slurry; placed downdrift and updrift of discharge		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1974	340,000	Agua Hedionda Lagoon	jetties		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1976	391 000	Agua Hedionda Lagoon	pumped as slurry; placed downdrift and updrift of discharge letties		
Sanssa State Beach Fair. Oceanside	Sandbad, San Diego County				1070	331,000	rigaa maalonaa Lagoon	pumped as slurry; placed downdrift and updrift of discharge		
	Carlsbad, San Diego County			RW'94	1979	418,000	Agua Hedionda Lagoon	jetties		
Carlsbad State Beach Park Oceanside	Carlsbad, San Diego County			RW'94	1981	235,000	Agua Hedionda Lagoon	pumped as slurry		

	Duration of				T		T
Applicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring	Notes	Ref. ID Permit/FC Ref.	See Also
		\$11,447,000 total		COE biological monitoring; sediment at			
USACOE		estimated cost	50 acres of continual disturbance at dredge pit	downdrift beaches		CD-003-84	
				COE will monitor surface water turbidity			
USACOE			dition disposed if devices assume	at dredge & disposal sites to determine effects on sight-feeding birds	post-march disposal allowed due to lack of beach at site; final CCC recommendation unclear in light of objections to 6-year time period	CD-063-89	CD-8-90; CD-3-84; CD-3-89
USACUE			dike disposal if during grunion season		recommendation unclear in light of objections to 6-year time period	CD-003-69	
USACOE			no disposal after March 15 to minimize impacts to plover, grunion and terns	impacts to plover nesting; Surface Water Turbidity Monitoring Program		CD-053-94	CD-63-89; CD-3-84; CD-20-83; ND-8-90; ND-95-92
USN		Congressional authorization				CD-009-98	CD-95-95; CD-140-97; CD-161-97
	Indicator Transect			Dort of annual Decisional Booch			
	(2003): MSL Shoreline Change =+72' Volume			Part of annual Regional Beach Monitoring Program of SANDAG			
	Change = +66 cy/ft Indicator Transect			Regional Beach Sand Project.	source: CFC, 2004		
	(2003): MSL Shoreline Change =+105'			Part of annual Regional Beach			
	Volume Change = +33 cy/ft			Monitoring Program of SANDAG Regional Beach Sand Project.	source: CFC, 2004		
OANDAG		00 500 000 des dels s		regional Beach Gana Froject.	300100. 01 0, 2004		
		\$2,500,000 dredging and jetty construction	"spoil immediately moved out into the surf zone"		source: Shaw 1980; USACOE-LA 1987 (Oceanside) (Cliff Sediments)		
					source: USACOE-LA 1987 (Oceanside) source: USACOE-LA 1987 (Cliff Sediments)		
					source: USACOE-LA 1987 (Cliff Sediments) source: USACOE-LA 1987 (Cliff Sediments)		
					source: USACOE-LA 1987 (Oceanside) source: USACOE-LA 1987 (Oceanside)		
					source: USACOE-LA 1987 (Oceanside)		
					source: USACOE-LA 1987 (Oceanside) source: USACOE-LA 1987 (Oceanside)		
					source: USACOE-LA 1987 (Oceanside) source: USACOE-LA 1987 (Oceanside)		
					,		
			"Storm waves and high tides eroded beach and removed all sand south of Encina Power Plant, Carlsbad"		source: USACOE-LA 1987 (Oceanside) (Cliff Sediments)		
					source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		
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					source: Shaw 1980		
					source: Shaw 1980		
					source: Shaw 1980		

		T					Dredge/Fill Volume		I		
Site	Cell	City/County	Latitude	Longitude	Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			RW'94	1983		Agua Hedionda Lagoon	pumped as slurry		,
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			RW'94	1985	404,000	Agua Hedionda Lagoon	pumped as slurry		
									pumped as slurry into surf zone S of discharge jetties; also		
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			RW'94	1988		Agua Hedionda Lagoon	pumped behind dikes along beach		
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			RW'94	1991		Agua Hedionda Lagoon			
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			RW'94	1992		Agua Hedionda Lagoon			
Carlsbad State Beach Park Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			RW'94 CE'99	1993	115,000	Agua Hedionda Lagoon Agua Hedionda Lagoon	placed on Middle and South Beaches		DR.DS
Carlsbad State Beach Park  Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			CE'99	Apr-91		Agua Hedionda Lagoon	placed on Middle beach (600-900 yd length)		DR,DS DR,DS
Carlsbad State Beach Park Carlsbad State Beach Park	Oceanside Oceanside	Carlsbad, San Diego County				FebApr. 1991 FebApr. 1988		Agua Hedionda Lagoon  Agua Hedionda Lagoon?	placed on North, Middle and South Beaches		DR,DS DR,DS
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County Carlsbad, San Diego County			CE'99 CE'99	Apr-92		Agua Hedionda Lagoon?	placed on North Beach		DR,DS
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			CE'99	1994		Agua Hedionda Lagoon?	placed on North, Middle and South Beaches		DK,D3
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			CE'99	1996		Agua Hedionda Lagoon?	placed on North, Middle and South Beaches		
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			CE'99	1997		Agua Hedionda Lagoon?	placed on Middle Beach		
Carlsbad State Beach Park	Oceanside	Carlsbad, San Diego County			CE'99	1998		Agua Hedionda Lagoon?	placed on Middle and South Beaches		
Agua Hedionda Lagoon	Oceanside	Carlsbad, San Diego County			RF '93	1954		placed on area beaches	placed on whole and odder beaches		DR
										Median grain size of fill = 0.62	
South Carlsbad	Oceanside	Carlsbad, San Diego County				6/25/01 - 7/6/01	158,000	Offshore	Trailing suction hopper dredge	mm	N
										Median grain size of fill = 0.62	
Batiquitos	Oceanside	Leucadia, San Diego County				8/16/01 - 8/23/01	117,000	Offshore	Trailing suction hopper dredge	mm	N
Leucadia	Oceanside	Leucadia, San Diego County				6/4/01 - 6/15/01	122,000	Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.62	N
Leucaula	Oceanside	Leucadia, San Diego County				0/4/01 - 0/13/01	132,000	Olisilore	Trailing Suction hopper dreage	111111	IN
Moonlight Beach	Oceanside	Encinitas, San Diego County				8/10/01 - 8/16/01	105,000	Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.34- 0.62 mm	N
Cardiff	Oceanside	Cardiff-by-the-Sea, San Diego County				8/2/01 - 8/10/01	101,000	Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.34 mm	N
Fletcher Cove	Oceanside	Solana Beach, San Diego County				6/15/01 - 6/24/01	146,000	Offshore San Diego Bay main channel	Trailing suction hopper dredge	Median grain size of fill = 0.14 mm	N
Del Mar	Oceanside	San Diego Co.			FC	as of 1-11-98	170.000	(dredge area 1)		sand with munitions	DR, DS, R
Del Mar	Oceanside	Del Mar, San Diego County				4/27/01 - 5/10/01		Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.14 mm	N
Torrey Pines	Oceanside	Del Mar, San Diego County				4/6/01 - 4/27/01	245,000	Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.14 mm	N
Pacific Beach	Mission Bay	Pacific Beach, San Diego Co.			TC'91	1948	613,333	3	beach widened 300 ft max		beach restoration
Pacific Beach	Mission Bay	Pacific Beach, San Diego Co.			RW'94	1948		Mission Bay	placed North of North Jetty		
Pacific Beach	Mission Bay	Pacific Beach, San Diego Co.			Shaw'80	1948		Mission Bay	widened beach max. 91 m (x ft)	migrated south; lost by 1957	
Pacific Beach	Mission Bay	Pacific Beach, San Diego Co.			TC'91	1973	306,667	,			
Pacific Beach	Mission Bay	Pacific Beach, San Diego Co.			RW'94	1973		Mision Bay entrance	_		
Pacific Beach	Mission Bay	Pacific Beach, San Diego Co.			Shaw'80	1973	300,610	Mission Bay		migrated south	
							-				
Mission Beach	Mission Bay	Mission Beach, San Diego Co.			TC'91	1948		Mission Bay	beach widened ~300 ft		DR, R
Mission Beach	Mission Bay	Mission Beach, San Diego Co.			RW'94	1958	150,000	Mission Bay			DR, R
Mission Beach	Mission Bay	Mission Beach, San Diego Co.			FC	October '83 to January '84	490.000	Mission Bay Harbor	cutter-head hydraulic suction or hopper dredge, discharged onto beachface from 16-26" surface pipeline (from N Jetty to Crystal Pier)	fine sand and silty sand	R, DS, DR
Mission Beach	Mission Bay	Mission Beach, San Diego Co.			RW'94	1984		Mission Bay entrance	placed N of jetties	inic sand and sitty sand	R, DS, DR
	oo.on bay		+			.504	2-10,000	San Diego Bay main channel	p		, 50, 5
Mission Beach	Mission Bay	Mission Beach, San Diego Co.			FC	as of 1-11-98	12,000	(dredge area 1)	(nearshore)	sand with munitions	DR, DS, R
Mission Beach	Mission Bay	Mission Beach, San Diego Co.				5/10/01 - 5/21/01	151,000	Offshore	Trailing suction hopper dredge	Median grain size of fill = 0.52 mm	N
Ocean Beach	Mission Ray	Ocean Reach San Diego Co			RW'94	1950	67.00	Mission Ray			DR, DS, R
Ocean Beach	Mission Bay	Ocean Beach, San Diego Co.			KW94	1950	67,000	Mission Bay	l .		υK, U5, K

	Duration of	L			L	L L	
pplicant/Sponsor	Fill/Performance	Funding	Environmental Effects	Monitoring		Ref. ID Permit/FC Ref.	See Also
					source: Shaw 1980 source: Shaw 1980		
					Source: Snaw 1960		
					source: Shaw 1981		
					source: Shaw 1982		
					source: Shaw 1983		
					source: Shaw 1984		
	>18 months				source: Coastal Environments 1999 Agua Hedionda Lagoon study		
	<6 months				source: Coastal Environments 1999 Agua Hedionda Lagoon study		
	<6 months				source: Coastal Environments 1999 Agua Hedionda Lagoon study		
	0-6 months				source: Coastal Environments 1999 Agua Hedionda Lagoon study		
					source: Coastal Environments 1999 Agua Hedionda Lagoon study		
					source: Coastal Environments 1999 Agua Hedionda Lagoon study		
					source: Coastal Environments 1999 Agua Hedionda Lagoon study		
					source: Coastal Environments 1999 Agua Hedionda Lagoon study		
	Indicator Transect			Dart of convey Decisional Beach			
	(2003): MSL Shoreline Change =+31' Volume			Part of annual Regional Beach Monitoring Program of SANDAG			
SANDAG	Change = -6 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
SANDAG	Change = -0 Cy/it			Regional Beach Sand Froject.	30uice. Ci C, 2004	<b>+</b>	
	Indicator Transect						
	(2003): MSL Shoreline			Part of annual Regional Beach			
	Change =+55' Volume			Monitoring Program of SANDAG			
SANDAG	Change = -5 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
	Indicator Transect						
	(2003): MSL Shoreline			Part of annual Regional Beach			
	Change =+28' Volume			Monitoring Program of SANDAG			
SANDAG	Change = +26 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
	Indicator Transect						
	(2003): MSL Shoreline						
	Change =+103'			Part of annual Regional Beach			
	Volume Change = -27			Monitoring Program of SANDAG			
SANDAG	cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
	Indicator Transect						
	(2003): MSL Shoreline			Part of annual Regional Beach			
	Change =+97' Volume			Monitoring Program of SANDAG	050 000		
SANDAG	Change = +54 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
	Indicates Tecases						
	Indicator Transect			Dort of convey Decisional Bosch			
	(2003): MSL Shoreline Change =+48' Volume			Part of annual Regional Beach Monitoring Program of SANDAG			
SANDAG	Change = +10 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
ONINDAG	Onlinge - 1 To cyrit	Congressional		regional Beach Gand Froject.	300100. 01 0, 2004		
USN		authorization				CD-009-98	CD-95-95; CD-140-97; CD-161-97
							0.000,000,000,000,000
	Indicator Transect						
	(2003): MSL Shoreline			Part of annual Regional Beach			
	Change =+96' Volume			Monitoring Program of SANDAG			
SANDAG	Change = +11 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
	Indicator Transect						
	(2003): MSL Shoreline			Part of annual Regional Beach			
	Change =+73' Volume			Monitoring Program of SANDAG			
SANDAG	Change = +17 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
	by '57, returned to '40						
	width				source: Shaw 1980		
	fill moved sauth				pouroe: Show 1090		
	fill moved south				source: Shaw 1980		
			sand migrated south to Mission beach				
	returned to '40 position	-	beachfill transported S; by 1958 shoreline had returned to 1948 position;				
USACOE	by 1960		shoreline retreated 200 ft. in reach S of Crystal Pier		source: USACOE-LAD 1960, 1964, 1987 (Cliff Sediments)		
USACOE	5, 1000		Shorowing residence 200 ft. in reach 3 of Grystain let		source: USACOE-LAD 1964		
00, 100L							
			"Turbidity during dredging and disposal operations will reduce dissolved				
			oxygen concentration in the water column and may temporarily clog		suspended sediment levels w/ discharge flow regulated through use of		
USACOE			respiratory and feeding mechanisms of fish and benthic animals."		weir system	CD-032-83	
	moved N after						
	placement near				source: Castens, Corps of Eng. Records, per. Comm. (see CCSTWS 87-		
USACOE	amusement park				10)		
		Congressional					
USN		authorization				CD-009-98	CD-95-95; CD-140-97; CD-161-97
	Indicator Transect						
	(2003): MSL Shoreline			Part of annual Regional Beach			
	Change =+91' Volume			Monitoring Program of SANDAG			
	Change = +41 cy/ft			Regional Beach Sand Project.	source: CFC, 2004		
SANDAG	Offarige = 141 Cyrit						
SANDAG USACOE	Onlinge = 141 cynt			migrated N, filled in mouth of San Diego River	source: Walker and Brodeur, 1993; USACE-LAD, 1970		

	1		1			Dredge/Fill Volume		1		
Site	Cell	City/County	Latitude	Longitude Database	Date of project	(yd³)	Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
Osser Breek	Mississ Day	Osses Basel, Car Biase Ca		01100	1050	00.057	Mississ Day	Navigant Ava to Constant Ava visidenced basels may 45 m (v.ft)	migrated north; lost in 6	
Ocean Beach Ocean Beach	Mission Bay Mission Bay	Ocean Beach, San Diego Co.  Ocean Beach, San Diego Co.		Shaw'80 SPCA'76	1950 1955	66,657	Mission Bay	Newport Ave. to Saratoga Ave.; widened beach max. 45 m (x ft)	months	groin and fill
Ocean Beach	Mission Bay	Ocean Beach, San Diego Co.		RW'94	1955	275,000	Mission Bay entrance	1700 ft long beach		groin and iiii
							-	Niagara Ave. to Cape May Ave.; widened beach max. 109 m (x	some migrated north;	
Ocean Beach Ocean Beach	Mission Bay	Ocean Beach, San Diego Co.		Shaw'80 87-10	1955 1959	274,470 275.000	Mission Bay	ft)	remainder stable	
Ocean Beach	Mission Bay Mission Bay	Ocean Beach, San Diego Co. Ocean Beach, San Diego Co.		87-10 RW'94	1959		Mission Bay entrance	contained at N end by groin placed S of groin		
Codan Bodon	illicolori Bay	Cocan Boach, can Biogo Co.		1	1001	00,000	inicolori Bay citirarico	placed of or grown		
Ossan Basah	Mississ Day	Const Booch Con Diseas Co		FC	October '83 to	50,000	Missian Day Harbar	cutter-head hydraulic suction or hopper dredge, discharged onto	fine and and alltipand	D DC DD
Ocean Beach North Island Oceanside Beach	Mission Bay Silver Strand	Ocean Beach, San Diego Co.  Coronado, San Diego County		RW'94	January '84 1941		Mission Bay Harbor San Diego Bay	beachface from 16-26" surface pipeline (from S Jetty to S Groin)	line sand and silly sand	R, DS, DR
North Island Oceanside Beach	Silver Strand	Imperial Beach, San Diego Co.		Shaw'80	1940-1941	2248040	San Diego Harbor	temporarily widened beach max. 272 m (x ft)		
							offshore borrow site ~1500'			
					lulu Daaambaa		offshore, 1 mi. downcoast of	authorized budget lie deedee at the state of the state of		
Coronado City Beach	Silver Strand	Coronado, San Diego County		FC	July-December '85	1,100,000	Amphibious base, 20-40' below	cutterhead hydraulic dredge, pumped through submerged pipeline to beach	sand	R. DR
Coronado City Beach	Oliver Ottana	Coronado, Can Diego County		10	- 00	1,100,000	MEEV	pipeline to beauti	retreated back 152 m (199 ft)	it, bit
Coronado Shores Beach	Silver Strand	Imperial Beach, San Diego Co.		Shaw'80	1946	26009300	San Diego Harbor	widened beach max. 333 m (x ft)	by 1958	
Gator Beach	Silver Strand	Coronado, San Diego County		RW'94	1977	1,100,000	San Diego Bay			
Gator Beach	Silver Strand	Coronado, San Diego County		RW'94	1985	1,100,000	San Diego Bay	hopper dredge for main channel dredging (source of		
					September 1986			nourishment sediment), clamshell dredge for pier dredging;		
					to March 15,		San Diego Bay, main channel,	submerged and floating pipeline transport to pre-existing pipeline		
Gator Beach	Silver Strand	Coronado, San Diego County		FC	1987	294,000	including Naval station piers	under Silver Strand Peninsula		N, R, DS, DR
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		TC'89	b/w 1936 and 1946	40,000,000	San Diego Bay	dradaing of Pay		D
Silver Strain State Beach Faik	Silver Strand	imperial beach, San Diego Co.		10.09	1940	40,000,000	Sall Diego Bay	dredging of Bay		navigation byproduct/
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1940-41	2,260,000		1.0 mi long; "temporary maximum shoreline advance of 898 ft"		recreational beach
O'bere Otrace d Otrata Decemb Decemb	01	Lancarial Bassala Con Bissas Co		T0104	4044.40	00 000 000		0.0 and learners of the conflict and a 0.05 ft		
Silver Strand State Beach Park Silver Strand State Beach Park	Silver Strand Silver Strand	Imperial Beach, San Diego Co. Imperial Beach, San Diego Co.		TC'91 TC'91	1941-46 1936	26,200,000 14,000,000		2.0 mi long; advanced shoreline seaward >985 ft		navigational byproduct navigation byproduct
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1944	14,000,000				navigation byproduct
Silver Strand State Beach Park	Silver Strand	Coronado, San Diego County		RW'94	1946		San Diego Bay	2 mile long beach		
Silver Strand State Beach Park	Silver Strand	Coronado, San Diego County		RW'94	1967	40,000	San Diego Bay			
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1967	40,000				
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		Shaw'80	1967		San Diego Harbor		net migration to North	
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		Shaw'80	1976	3,467,471	San Diego Harbor		net migration to North	
Silver Strand State Beach Park	Silver Strand	Coronado, San Diego County		RW'94	1976	1,000,000	San Diego Bay			
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1976	3,500,000		2.0 mi long		
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1985	1,100,000		0.7 mi long		
							San Diego bay outer entrance	placed in nearshore as submerged mound, 1200 ft. long, 600 ft.		
Silver Strand State Beach Park	Silver Strand	Coronado, San Diego County		RW'94	1988	148,000	Channel	wide, ~7 ft high	median = 0.25 mm	
Silver Strand State Beach Park	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1988	~1,000,000		"placed offshore in 25 ft water depth"		navigation byproduct
Silver Strand State Beach (nearshore disposal)	Silver Strand	Imperial Beach, San Diego Co.		DRP-1-01	1988-1989	100 000	San Diego bay outer entrance Channel	split-hull dredge disposal in nearshore; 1200 ft long, 600 ft wide from 800 to 1400 ft offshore (-10 to -30' MLLW)		DR, DS
uisposai)	Silver Strand	imperial beach, San Diego Co.		DKF-1-01	1900-1909	190,000	Channel	ITOTI 800 to 1400 it diistidie (-10 to -30 MLEW)	200 sieve	DR, D3
Silver Strand State Beach (nearshore							San Diego Bay (entrance and		92.4% sand or larger particles;	
disposal)	Silver Strand	Imperial Beach, San Diego Co.		FC	Feb-96	400,000	navigation channels)	Hopper dredge "Essayons"; nearshore disposal	low in total organic carbon	R, DS, DR
Silver Strand State Beach (nearshore	1							ESSAYONS hopper dredge, then deposition in -35 to -40 MLLW		
disposal)	Silver Strand	Imperial Beach, San Diego Co.		FC	1987	450,000		offshore of Silver Strand Beach		R, DS, DR
,		, , , , , , , , , , , , , , , , , , , ,				,	disposal on bay side of Delta			, -,
Delta Beach (north side, ocean)	Silver Strand	Coronado, San Diego County		FC	1995	-60,000		transport via truck		DR
Delta Beach (south side, bay)	Silver Strand	Coronado, San Diego County		FC	1995	60.000	ocean side of Delta beach	transport via truck		N
Imperial Beach	Silver Strand	Imperial Beach, San Diego County		RW'94	1995	1,100,000	ocean side of Della Deach	uanoport via truck		IN .
•	Suana	, z zzzz., zan ziego es.				1,100,000				
Imperial Beach	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1977	1,100,000		1.0 mi long; ~150 ft wide		
Imperial Beach	Silver Strand	Imperial Beach, San Diego Co.		Shaw'80	1977	999855	San Diego Harbor		net migration to North	
Imperial Beach	Silver Strand	Imperial Beach, San Diego Co.		TC'91	1979	1,000,000			fill contained foreign matter	
Imperial Beach	Silver Strand	Imperial Beach, San Diego Co.	<u> </u>	TC'89	1977, 1979	2,100,000				R
								1		
Imperial Reach	Silver Strand	Imperial Reach, Son Diogo Co		F0	late 1984?	7 200	Tijuana elough and ootuge	dragline and bulldozer dredging; placement on beach above MHW, leveling to grade	storm-deposited sands; no	NP.
Imperial Beach	onver strand	Imperial Beach, San Diego Co.	1	FC	iate 1984?	7,300	Tijuana slough and estuary	ivinivi, leveling to grade	mud	DR
							Ballast Point, Point Loma			
Imperial Beach	Silver Strand	Imperial Beach, San Diego Co.		FC	1994	51,000	Peninsula, San Diego	nearshore disposal	97% sand	R, DS, DR
							San Diego Bay, Naval Station,			
Imperial Beach	Silver Strand	Imperial Beach, San Diego Co.	1	FC	1994	240,000	Pier 2 San Diego Bay, Naval Station,	disposal in nearshore (>10' MLLW)	predominantly sandy	R, DS, DR
										1
Imperial Beach	Silver Strand	Imperial Beach, San Diego Co.		RW '94	1994	<240,000	Pier 3		sandy portion of dredge spoils	R

	Duration of							
Applicant/Sponsor		Funding	Environmental Effects	Monitoring	Notes	Ref. ID	Permit/FC Ref. See Also	
		\$161,000			source: CA-DNOD 1976			
		¥ , ,						
USACOE					source: USACE-LAD 1970			
			"Turbidity during dredging and disposal operations will reduce dissolved					
			oxygen concentration in the water column and may temporarily clog		suspended sediment levels w/ discharge flow regulated through use of			
USACOE			respiratory and feeding mechanisms of fish and benthic animals."		weir system source: Shaw 1980; Walker and Brodeur, 1993	CD-032-83		
					Source. Snaw 1960, walker and Brodeur, 1993			
				post-construction monitoring at borrow site for recolonization and sand				
USACOE			scheduled to avoid grunion spawning and least tern nesting	movement into pit	receiver beach is ~3300' long;	CD-003-85		
					-			
					source: Shaw 1980; Walker and Brodeur, 1993			
					source: Shaw 1980; Walker and Brodeur, 1993			
					Gator Beach selected b/c: 1) extant underground pipeline; 2) extant			
					nourishment project in the area; 3) eroding condition 4) extant archeological and biological surveys BUT Gator Beach off-limits to public			
USACOE			scheduled around least tern nesting		for military reasons	CD-033-85		
	eventually migrated N		NAGO - 4000 - h l'on h - h - h l'on h - h l'on h -		source: Moffat and Nichol, Engineers 1987; Shaw 1980			
			"After 1960, shoreline behaved approximately as it had before 1933. Indicates the beachfill-forced shoreline adjusted to a dynamic equilibrium		source: Moffat and Nichol, Engineers 1987; Shaw 1980; Inman 1976;			
			platform b/w 1954 and 1960."		Converse 1982			
		\$1,260,000			source: USACOE-LA 1986 (oral) source: Inman 1976			
					source: Shaw 1980; Walker and Brodeur, 1993			
					source: Shaw 1980; Walker and Brodeur, 1993			
			"Net migration to N. Ultimately impounded by Zuniga Jetty or swept offshore to depths of 495-990 ft by ebb currents."		source: Moffat and Nichol, Engineers 1987; Shaw 1980			
			onshore to depths of 455-550 it by ebb currents.		Source: World and Wichor, Engineers 1907, Shaw 1900			
					Oberes 4000 Welling and Develope 4000			
			"1987: Since 1978, the beach has eroded and the buildings constructed		source: Shaw 1980; Walker and Brodeur, 1993			
			on the 1941-1976 fill can be completely surrounded by the sea during					
			even small storm events."		source: Moffat and Nichol, Engineers 1987 source: Moffat and Nichol, Engineers 1987			
	sand moved				Source: World, Engineers 1007			
	shoreward		IICina 4044 meet of the fill has remained in the system. Appears 20					
			"Since 1941, most of the fill has remained in the system. Appears 20- 30% moved offshore because too fine to remain in dynamic equilibrium					
			on shoreface. Somewhat <40% of the beachfill that was reworked was		source: Moffat and Nichol, Engineers 1987; Surfrider Foundation,			
	migrated on and		lost offshore."		1987/88 source: DRP-1-01, August 1990, "Construction and Monitoring of			
USACOE	downshore				Nearshore Placement of Dredged Material at Silver Strand State"			
					•			
USACOE						CD-071-95	CD-53-87; CD-3-87; CD-91-93	
00,.002			increased turbidity, loss of O2, loss of benthics, impacts to least tern,				05 05 01, 05 0 01, 05 01 00	
USACOE			grunion, kelp; dredging activity modified to prevent turbidity in upper 1/3 of H2O column			CD 052 07		
USACUE			OF FIZO COMMINE			CD-053-87		
USN						CD-128-95		
USN			to protect nesting tern colonies		to improve least tern nesting habitat; loss of sand from ocean-side littoral system to be offshet by homeporting dredge spoils	CD-128-95		
3014			- Francisco			.20 33		
	50% lost by 6/1079				source: Van Deerlin 1978; Shaw 1980; USACOE-LA 1983; Moffat and Nichol 1987			1 7
<b> </b>	50% lost by 6/1978				INIGIOI 1907			
			"demonstrated winnowing will clean sand." 1986: "Groins have not					
			worked very well because of fine nature of sand." migrated to N		source: USACOE-CERC 1984; Converse 1982; USACOE-LA 1986 (oral) sources: Shaw 1980, Converse 1982, USACOE 1984, 1986			$\vdash$
			work scheduled to avoid impacts to: light-footed clapper rails, CA least		353.535. 3.88 1300, 00H0130 1002, 00M00E 1004, 1900			
LICEWIC			terns, Western snowy plovers; sited to avoid impacts to salt-marsh birds-			00 044 5 :		
USFWS			beak kelp beds avoided during disposal; pre-disposal survey w/ NMFS and			CD-041-84		$\vdash$
			demarcation of kelp area; nearshore disposal minimizes impacts to					
US Coast Guard			grunions			CD-026-94	CD-91-93	1
USN			kelp beds	kelp bed monitoring		CD-091-93		
					1	1		

						Dredge/Fill Volume				
Site	Cell	City/County	Latitude	Longitude Database	Date of project		Fill Source/Site	Dredge/Transport Method	Dredge/Fill Characteristics	Activity
									Median grain size of fill = 0.24-	
Imperial Beach	Silver Strand	Imperial Beach, San Diego County			5/22/01 - 6/04/01	120,000	Offshore	Trailing suction hopper dredge	0.52 mm	N
							connector channel between the Oneonta Slough and existing	hydraulic cutterhead dredge for excavation; pipeline transport to		
Tijuana River National Estuary	Silver Strand	Imperial Beach, San Diego		FC	winter 96	?	tidal lagoons	surf zone; front end loader	65-75% sand	DS, DR
			1		1					

	D					
	Duration of	L				
Applicant/Sponsor		Funding	Environmental Effects	Monitoring	Notes Ref. ID	Permit/FC Ref. See Also
	Indicator Transect					
	(2003): MSL Shoreline					
	Change =+137'			Part of annual Regional Beach		
	Volume Change = +52			Monitoring Program of SANDAG		
SANDAG	cy/ft			Regional Beach Sand Project.	source: CFC, 2004	
CA Coastal			disposal during rainy season, during outgoing tides to simulate natural			
Conservancy			high turbidity situations		CC-054	96
						ENISHMENT
					DS=DIS	
						RISHMENT
					DR=DR	
					B=BYP/	
						TENANCE
					TC=Ton	raClayton
						horeProtectionInCalifornia-DNOD1976
						Flick- <u>S&amp;B</u> '93
						ertWeigel-S&B'94
					CE=Coa	stal Environments 1999 Agua Hedionda Lagoon Study
					NRC=N	tional Research Council Beach Nourishment and Protection
					ACOE=	IS ACOE 1990 Beach and Nearshore Placement of
						Dredged from Federally authorized navigation projects
					P,Y'89=	atterson and Young, Coastal Zone '89
						Leidersdorf, Hollar and Woodell, Shore and Beach 1994
					Shaw'80	=Martha Shaw 1980 Scripps Report
					LAD95=	ACOE LA District Surfside-Sunset/West Newport Beach
						nent Project, Orange Co., CA; May 1995
					DS'85=I	onald Spencer, The Newport Beach Groin Field,
						Co CA, in CA's Battered Coast, 1985
						S ACOE 1987 CCSTWS 87-10 Shoreline Movement
						tions Report
						=ACOE LA District CCSTWS Final Report 93-1
						SS=Beach Nourishment Sediment Sources: Previous
						and results from vibracoring field program, Orange Co.
						Report, 1993
						ACOE LA District CCSTWS Chapter 4 Draft Report
					Decemb	
					Decemb	31 1000